GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 3, 2006, 20:23:29 ; Search time 202 Seconds
(without alignments)
700.396 Million cell updates/sec

Title: US-10-747-702-3
Perfect score: 1691
Sequence: 1 MDPTIPVLGTKLTPINGREE.....EGGGWLPQETLELSGSKLEQ 322

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_21:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*
9: geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1691	100.0	322	2	AAY30159	Aay30159 Human dor
2	1691	100.0	322	9	ADW46672	Adw46672 Human SNS
3	1647	97.4	322	3	AAY90762	Aay90762 Human G p
4	1647	97.4	322	5	ADI16994	Adi16994 Human NOV
5	1647	97.4	322	5	ADI16999	Adi16999 Human NOV
6	1647	97.4	322	7	ADC86821	Adc86821 Human GPC
7	1647	97.4	322	8	ADO44604	Ado44604 Human HI7
8	1642	97.1	322	3	AAY90761	Aay90761 Human G p
9	1642	97.1	322	5	ABJ04077	Abj04077 Human G p
10	1642	97.1	322	5	AAE21296	Aae21296 Human Mrg
11	1642	97.1	322	5	ADI16993	Adi16993 Human NOV
12	1642	97.1	322	5	ADI16998	Adi16998 Human NOV
13	1642	97.1	322	6	ABP81750	Abp81750 Human G p
14	1642	97.1	322	8	ADH08535	Adh08535 MrgX3. 3/
15	1642	97.1	322	8	ADO44602	Ado44602 Human HI7
16	1642	97.1	322	8	ADO29705	Ado29705 Human GPC
17	1642	97.1	322	9	ADW02571	Adw02571 Mas-relat
18	1642	97.1	337	5	AAU97598	Aau97598 Human G-p
19	1642	97.1	560	7	ADF70481	Adf70481 Orphan re
20	1637	96.8	322	8	ADF29105	Adf29105 Human GPC
21	1628	96.3	322	3	AAB14846	Aab14846 Human nov
22	1571	92.9	322	2	AAY30160	Aay30160 Human dor
23	1571	92.9	322	9	ADW02576	Adw02576 Human sen
24	1527	90.3	302	6	ABP96695	Abp96695 Human G p
25	1395	82.5	322	2	AAY30161	Aay30161 Human dor
26	1395	82.5	322	9	ADW02566	Adw02566 Human sen
27	1381	81.7	322	2	AAY30162	Aay30162 Human dor
28	1375	81.3	304	7	ADC12766	Adc12766 Human GPC
29	1375	81.3	322	3	AAY87664	Aay87664 Human G p
30	1375	81.3	322	7	ADC17728	Adc17728 Human TGR
31	1373	81.2	322	4	AAG64294	Aag64294 Human GTP
32	1373	81.2	322	4	AAE12794	Aae12794 Human G p
33	1373	81.2	322	4	AAU04371	Aau04371 Human G-p
34	1373	81.2	322	5	AAE17074	Aae17074 Human G-p
35	1373	81.2	322	5	ABP95617	Abp95617 Human GPC
36	1373	81.2	322	5	AAE21288	Aae21288 Human Mrg
37	1373	81.2	322	5	ADI16991	Adi16991 Human NOV
38	1373	81.2	322	5	ADI16636	Adi16636 Human NOV
39	1373	81.2	322	5	ADI16997	Adi16997 Human NOV
40	1373	81.2	322	6	ABP96696	Abp96696 Human G p
41	1373	81.2	322	6	ABP59266	Abp59266 Human Dor
42	1373	81.2	322	7	ADC86445	Adc86445 Human GPC
43	1373	81.2	322	7	ABW00803	Abw00803 Human GPC
44	1373	81.2	322	7	ADL96466	Adl96466 Human G p
45	1373	81.2	322	8	ADH08520	Adh08520 MrgX1. 3/

ALIGNMENTS

RESULT 1
AAY30159
ID AAY30159 standard; protein; 322 AA.
XX
AC AAY30159;
XX
DT 20-MAR-2003 (revised)
DT 26-NOV-1999 (first entry)
XX
DE Human dorsal root receptor 1 hDRR1.
XX
KW Dorsal root receptor; dorsal root ganglia; G-protein coupled receptor;
KW hDRR1; central nervous system; CNS; anaesthesia; analgesia; neuron; pain.
XX
OS Homo sapiens.
XX
PN WO9932519-A1.
XX
PD 01-JUL-1999.
XX
PF 16-DEC-1998; 98WO-SE002348.
XX
PR 22-DEC-1997; 97SE-00004836.
XX
PA (ASTR) ASTRA PHARMA INC.
PA (ASTR) ASTRA AB.
XX
PI Ahmad S, Banville D, Fortin Y, Lembo P, O'donell D, Shen S;
XX
DR WPI; 1999-405162/34.
DR N-PSDB; AAZ10067.
XX
PT Rat and human dorsal root receptors and related polynucleotides, useful
PT for identifying agents for anesthesia and analgesia.
XX
PS Claim 6; Page 39-41; 72pp; English.
XX
CC This is the human dorsal root receptor 1 (hDRR1) protein sequence. This
CC is a G protein coupled receptor that is expressed preferentially in
CC dorsal root ganglia. hDRR1 can be used to create antibodies against
CC hDRR1. The dorsal root ganglia area of the central nervous system (CNS)
CC is densely innervated with primary or afferent neurons involved in
CC transmission, modulation and sensation of pain. The DRR's which are
CC expressed in this region of the CNS may be used for assays for the
CC identification of new agents for anaesthesia and analgesia. (Updated on
CC 20-MAR-2003 to correct PA field.)
XX

```
SQ   Sequence 322 AA;

  Query Match             100.0%;  Score 1691;  DB 2;  Length 322;
  Best Local Similarity   100.0%;  Pred. No. 2.4e-175;
  Matches  322;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              ||||||||||||||||||||||
Db        301 VDEGGGWLPQETLELSGSKLEQ 322


RESULT 2
ADW46672
ID   ADW46672 standard; protein; 322 AA.
XX
AC   ADW46672;
XX
DT   24-MAR-2005  (first entry)
XX
DE   Human SNSR1 polypeptide.
XX
KW   Sensory neuron-specific G protein-coupled receptor 1; SNSR1;
KW   g-protein coupled receptor; gpcr; diagnosis; cardiovascular disease;
KW   gastrointestinal disease; liver disease; cancer; neoplasm; inflammation;
KW   hematological disease; respiratory disease; neurological disease;
KW   genitourinary disease; cardiovascular-gen.; cardiant; vasotropic;
KW   antiarrhythmic; antiarteriosclerotic; hypotensive; gastrointestinal-gen.;
KW   antiinflammatory; antiulcer; hepatotropic; antiallergic; dermatological;
KW   thyromimetic; immunosuppressive; antianemic; cytostatic; hemostatic;
KW   antiasthmatic; respiratory-gen.; cns-gen.; antiparkinsonian; nootropic;
KW   neuroprotective; cerebroprotective; nephrotropic; uropathic; receptor.
XX
OS   Homo sapiens.
XX
PN   WO2004111642-A2.
XX
PD   23-DEC-2004.
XX
PF   04-JUN-2004; 2004WO-EP006078.
XX
PR   16-JUN-2003; 2003EP-00013598.
XX
PA   (FARB ) BAYER HEALTHCARE AG.
XX
PI   Golz S,  Brueggemeier U,  Summer H;
XX
DR   WPI; 2005-057894/06.
DR   N-PSDB; ADW46671.
XX
PT   Screening for therapeutic agents, useful for treating e.g.,
PT   cardiovascular disorders, comprises contacting a test compound with
PT   sensory neuron-specific G protein-coupled receptor 1 (SNSR1) polypeptide
PT   and detecting binding.
XX
PS   Disclosure; SEQ ID NO 2; 122pp; English.
XX
CC   The invention relates to a method of screening for therapeutic agents for
CC   treating diseases associated with sensory neuron-specific G protein-
CC   coupled receptor 1 (SNSR1). The method comprises contacting a test
CC   compound with SNSR1 polypeptide or polynucleotide and detecting the
CC   binding of the test compound to SNSR1 polypeptide or polynucleotide, or
CC   determining the SNSR1 polypeptide activity (a) at a certain test compound
CC   concentration, (b) in the absence of the test compound, or (c) at a
CC   different concentration of the test compound. Also described are (i) a
CC   method of diagnosing a disease defined above in a mammal, (ii) a
CC   pharmaceutical composition for the treatment of the disease above
CC   comprising the SNSR1 polypeptide, (iii) a SNSR1 polynucleotide, or a
CC   therapeutic agent which binds to the SNSR1 polypeptide or which regulates
CC   the SNSR1 polypeptide activity such as a small molecule, an RNA molecule,
CC   an antisense oligonucleotide, a polypeptide, an antibody, or a ribozyme,
CC   and (iv) a method for the preparation of a pharmaceutical composition
CC   useful for treating the above diseases. The SNSR1 regulatory compounds
CC   are useful for preparing a pharmaceutical composition for treating
CC   diseases such as cardiovascular disorders, gastrointestinal and liver
CC   diseases, cancer disorders, inflammatory diseases, hematological
CC   disorders, respiratory diseases, neurological disorders, or urological
CC   disorders in a mammal. They are also useful for the regulation of SNSR1
CC   activity in a mammal having the disease. Cardiovascular diseases include
CC   heart failure, myocardial infarction, ischemia, arrhythmias, and
CC   atherosclerosis. Liver diseases include jaundice, Crigler-Najjar,
CC   cholestasis, hepatomegaly, Reye's syndrome. Examples of gastrointestinal
CC   diseases are dysphagia, Barrett's metaplasia, stress gastritis, gastric
CC   ulcers, and chronic pancreatitis. Inflammatory diseases include atopic
CC   diseases, allergic rhinitis or conjunctivitis, hereditary angioedema,
CC   Hashimoto's thyroiditis, systemic lupus erythematosus and scleroderma.
CC   Hematological diseases include anemia, myeloproliferative disorders,
CC   hemorrhagic disorders, leukopenia, leukemia, and lymphomas. Respiratory
CC   diseases can be asthma or chronic obstructive pulmonary disease.
CC   Neurological disorders include Parkinson's disease, dementia, multiple
CC   sclerosis, stroke, and Alzheimer's disease. Urological disorders include
CC   renal transplant rejection, lupus nephritis, glomerulopathies, nephritis,
CC   and erectile dysfunction. The nucleotide sequences encoding SNSR1 are
CC   useful as hybridization probes, in constructing oligomers for PCR, for
CC   chromosome and gene mapping, in the recombinant production of SNSR1, in
CC   generating antisense DNA or RNA and in molecular biology techniques that
CC   have not yet been developed. The SNSR1 polypeptide is useful for
CC   immunizing a mammal to produce polyclonal antibodies and for diagnostic
CC   purposes. This sequence represents human SNSR1.
XX
SQ   Sequence 322 AA;

  Query Match             100.0%;  Score 1691;  DB 9;  Length 322;
  Best Local Similarity   100.0%;  Pred. No. 2.4e-175;
  Matches  322;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
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                    ||||||||||||||||||||||
Db        301 VDEGGGWLPQETLELSGSKLEQ 322


RESULT 3
AAY90762
ID   AAY90762 standard; protein; 322 AA.
XX
AC   AAY90762;
XX
DT   18-AUG-2000  (first entry)
XX
DE   Human G protein-coupled receptor hHI7T213V SEQ ID NO:2.
XX
KW   Human; G protein-coupled receptor; hippocampus; diagnosis; screening;
KW   genetic disease; cellular function regulation.
XX
OS   Homo sapiens.
XX
PN   WO200020455-A1.
XX
PD   13-APR-2000.
XX
PF   30-SEP-1999;   99WO-JP005366.
XX
PR   01-OCT-1998;   98JP-00279535.
XX
PA   (TAKE ) TAKEDA CHEM IND LTD.
XX
PI   Watanabe T,  Terao Y,  Matsui H;
XX
DR   WPI; 2000-303747/26.
DR   N-PSDB; AAA29812.
XX
PT   Human-derived G protein-coupled protein and encoding nucleic acid, useful
PT   e.g. in determining ligands and treatment of diseases associated with
PT   dysfunction of the protein.
XX
PS   Claim 2; Page 92-93; 97pp; Japanese.
XX
CC   The present sequence represents a human-derived G protein-coupled protein
CC   designated hHI7T213V, which is isolated from the human hippocampus. The G
CC   protein-coupled receptor can be used for preventing, treating and
CC   diagnosing genetic diseases associated with G protein-coupled protein,
CC   and for regulating cellular functions. The protein can be used to prevent
CC   and treat disorders associated with G protein-coupled protein gene
CC   dysfunction. It can also be used to identify G protein-coupled protein
CC   ligands and generating antibodies and antisera against the protein. It is
CC   also useful in constructing recombinant receptor protein expression
CC   systems, developing receptor-binding assay systems and screening drug
CC   candidates, and can be used as a probe in the genetic diagnosis of G
CC   protein-coupled protein disorders
XX
SQ   Sequence 322 AA;

  Query Match             97.4%;  Score 1647;  DB 3;  Length 322;
  Best Local Similarity   97.5%;  Pred. No. 1.5e-170;
  Matches  314;  Conservative    4;  Mismatches    4;  Indels    0;  Gaps    0;

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              || |||||||:|||||||||||||| ||||||||||:||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              ||||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 4
ADI16994
ID   ADI16994 standard; protein; 322 AA.
XX
AC   ADI16994;
XX
DT   15-APR-2004  (first entry)
XX
DE   Human NOVX protein homologue SeqID 530.
XX
KW   human; NOVX; cardiomyopathy; atherosclerosis; cancer; diabetes;
KW   inflammation; autoimmune disorder; allergy; blood disorder;
KW   acquired immunodeficiency syndrome; AIDS; obesity; asthma;
KW   immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis;
KW   Alzheimer's disease; infection; str.
XX
OS   Homo sapiens.
XX
PN   WO200268649-A2.
XX
PD   06-SEP-2002.
XX
PF   31-JAN-2002; 2002WO-US002785.
XX
PR   31-JAN-2001; 2001US-0265395P.
PR   31-JAN-2001; 2001US-0265412P.
PR   31-JAN-2001; 2001US-0265514P.
PR   31-JAN-2001; 2001US-0265517P.
PR   02-FEB-2001; 2001US-0266406P.
PR   05-FEB-2001; 2001US-0266767P.
PR   07-FEB-2001; 2001US-0266975P.
PR   07-FEB-2001; 2001US-0267057P.
PR   08-FEB-2001; 2001US-0267459P.
PR   09-FEB-2001; 2001US-0267823P.
PR   15-FEB-2001; 2001US-0268974P.
PR   26-FEB-2001; 2001US-0271664P.
PR   27-FEB-2001; 2001US-0271839P.
PR   27-FEB-2001; 2001US-0271855P.
PR   02-MAR-2001; 2001US-0272788P.
PR   02-MAR-2001; 2001US-0273046P.
PR   14-MAR-2001; 2001US-0275925P.
PR   14-MAR-2001; 2001US-0275947P.
PR   14-MAR-2001; 2001US-0275950P.
PR   14-MAR-2001; 2001US-0275989P.
PR   15-MAR-2001; 2001US-0276448P.
PR   15-MAR-2001; 2001US-0276450P.
PR   16-MAR-2001; 2001US-0276397P.
PR   16-MAR-2001; 2001US-0276768P.
PR   20-MAR-2001; 2001US-0278652P.
PR   26-MAR-2001; 2001US-0278775P.
PR   26-MAR-2001; 2001US-0278778P.
PR   29-MAR-2001; 2001US-0279882P.
PR   29-MAR-2001; 2001US-0279884P.
PR   30-MAR-2001; 2001US-0280147P.
PR   11-APR-2001; 2001US-0282992P.
PR   11-APR-2001; 2001US-0283083P.
PR   20-APR-2001; 2001US-0285133P.
PR   23-APR-2001; 2001US-0285749P.
PR   03-MAY-2001; 2001US-0288327P.
PR   03-MAY-2001; 2001US-0288504P.
PR   29-MAY-2001; 2001US-0294047P.
PR   30-MAY-2001; 2001US-0294473P.
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PR   08-JUN-2001; 2001US-0296964P.
PR   18-JUN-2001; 2001US-0298959P.
PR   19-JUN-2001; 2001US-0299324P.
PR   13-AUG-2001; 2001US-0312020P.
PR   16-AUG-2001; 2001US-0312889P.
PR   16-AUG-2001; 2001US-0312908P.
PR   21-AUG-2001; 2001US-0313390P.
PR   28-AUG-2001; 2001US-0315470P.
PR   31-AUG-2001; 2001US-0316447P.
PR   07-SEP-2001; 2001US-0318115P.
PR   07-SEP-2001; 2001US-0318118P.
PR   12-SEP-2001; 2001US-0318740P.
PR   19-SEP-2001; 2001US-0323379P.
PR   18-OCT-2001; 2001US-0330245P.
PR   18-OCT-2001; 2001US-0330308P.
PR   14-NOV-2001; 2001US-0332701P.
XX
PA   (CURA-) CURAGEN CORP.
XX
PI   Tchernev VT, Spytek KA, Zerhusen BD, Patturajan M, Shimkets RA;
PI   Li L, Gangolli EA, Padigaru M, Anderson DW, Rastelli L, Miller CE;
PI   Gerlach VL, Taupier RJ, Gusev VY, Colman SD, Wolenc AR, Pena CEA;
PI   Furtak K, Grosse WM, Alsobrook JP, Lepley DM, Rieger DK, Burgess CE;
XX
DR   WPI; 2002-706998/76.
XX
PT   New NOVX polypeptides and nucleic acids, useful for preventing or
PT   treating NOVX-associated disorders, e.g. cancer, cardiomyopathy,
PT   atherosclerosis, or diabetes, and in chromosome mapping, tissue typing or
PT   pharmacogenomics.
XX
PS   Disclosure; SEQ ID NO 530; 1498pp; English.
XX
CC   This invention relates to a novel nucleic acids, and encoded polypeptides
CC   thereof, which have properties related to the stimulation of biochemical
CC   or physiological responses in a cell, tissue, organ or organism.
CC   Specifically, it refers to the use of biologically active fragments for
CC   diagnostic and prognostic assays and furthermore in the treatment of
CC   diverse pathological conditions. The present invention describes novel
CC   human and murine NOVX proteins, as well as methods to modulate their
CC   expression using antisense oligos, ribozymes and peptide nucleic acids.
CC   The NOVX polypeptides, polynucleotides and antibodies are useful in
CC   treating or preventing NOVX-associated disorders, e.g. cardiomyopathy,
CC   atherosclerosis, cancer and diabetes. Furthermore, they may be used in
CC   treating or preventing diseases such as inflammation, autoimmune
CC   disorders, allergies, blood disorders, acquired immunodeficiency syndrome
CC   (AIDS), obesity, asthma, immunoglobulin (Ig)A nephropathy, cirrhosis,
CC   arthritis, Alzheimer's disease, infections, stroke, muscular dystrophy
CC   and epilepsy. Accordingly, these molecules have many activities including
CC   cytostatic, cardiant, antiinflammatory, immunosuppressive, antiallergic,
CC   haemostatic, anti-HIV, antidiabetic, antiarteriosclerotic, anorectic,
CC   antiasthmatic, nephrotropic, antiarthritic, hepatotropic,
CC   neuroprotective, nootropic, antibacterial, virucide, antiparasitic,
CC   relaxant and anticonvulsant. In addition, they are useful in screening
CC   assays to identify small molecules that modulate or inhibit, for example,
CC   neurogenesis, wound healing and angiogenesis. The nucleic acids are also
CC   used as in chromosome mapping, tissue typing, preventive medicine and
CC   pharmacogenomics. This polypeptide is a homologue of a human NOVX protein
CC   of the invention.
XX
SQ   Sequence 322 AA;

  Query Match             97.4%;  Score 1647;  DB 5;  Length 322;
  Best Local Similarity   97.5%;  Pred. No. 1.5e-170;
  Matches  314;  Conservative    4;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:|||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:|||||||| ||| ||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 5
ADI16999
ID   ADI16999 standard; protein; 322 AA.
XX
AC   ADI16999;
XX
DT   15-APR-2004  (first entry)
XX
DE   Human NOVX protein homologue SeqID 535.
XX
KW   human; NOVX; cardiomyopathy; atherosclerosis; cancer; diabetes;
KW   inflammation; autoimmune disorder; allergy; blood disorder;
KW   acquired immunodeficiency syndrome; AIDS; obesity; asthma;
KW   immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis;
KW   Alzheimer's disease; infection; str.
XX
OS   Homo sapiens.
XX
PN   WO200268649-A2.
XX
PD   06-SEP-2002.
XX
PF   31-JAN-2002; 2002WO-US002785.
XX
PR   31-JAN-2001; 2001US-0265395P.
PR   31-JAN-2001; 2001US-0265412P.
PR   31-JAN-2001; 2001US-0265514P.
PR   31-JAN-2001; 2001US-0265517P.
PR   02-FEB-2001; 2001US-0266406P.
PR   05-FEB-2001; 2001US-0266767P.
PR   07-FEB-2001; 2001US-0266975P.
PR   07-FEB-2001; 2001US-0267057P.
PR   08-FEB-2001; 2001US-0267459P.
PR   09-FEB-2001; 2001US-0267823P.
PR   15-FEB-2001; 2001US-0268974P.
PR   26-FEB-2001; 2001US-0271664P.
PR   27-FEB-2001; 2001US-0271839P.
PR   27-FEB-2001; 2001US-0271855P.
PR   02-MAR-2001; 2001US-0272788P.
PR   02-MAR-2001; 2001US-0273046P.
PR   14-MAR-2001; 2001US-0275925P.
PR   14-MAR-2001; 2001US-0275947P.
PR   14-MAR-2001; 2001US-0275950P.
PR   14-MAR-2001; 2001US-0275989P.
PR   15-MAR-2001; 2001US-0276448P.
PR   15-MAR-2001; 2001US-0276450P.
PR   16-MAR-2001; 2001US-0276397P.
PR   16-MAR-2001; 2001US-0276768P.
PR   20-MAR-2001; 2001US-0278652P.
PR   26-MAR-2001; 2001US-0278775P.
PR   26-MAR-2001; 2001US-0278778P.
PR   29-MAR-2001; 2001US-0279882P.
PR   29-MAR-2001; 2001US-0279884P.
PR   30-MAR-2001; 2001US-0280147P.
PR   11-APR-2001; 2001US-0282992P.
```

PR 11-APR-2001; 2001US-0283083P.
PR 20-APR-2001; 2001US-0285133P.
PR 23-APR-2001; 2001US-0285749P.
PR 03-MAY-2001; 2001US-0288327P.
PR 03-MAY-2001; 2001US-0288504P.
PR 29-MAY-2001; 2001US-0294047P.
PR 30-MAY-2001; 2001US-0294473P.
PR 08-JUN-2001; 2001US-0296964P.
PR 18-JUN-2001; 2001US-0298959P.
PR 19-JUN-2001; 2001US-0299324P.
PR 13-AUG-2001; 2001US-0312020P.
PR 16-AUG-2001; 2001US-0312889P.
PR 16-AUG-2001; 2001US-0312908P.
PR 21-AUG-2001; 2001US-0313390P.
PR 28-AUG-2001; 2001US-0315470P.
PR 31-AUG-2001; 2001US-0316447P.
PR 07-SEP-2001; 2001US-0318115P.
PR 07-SEP-2001; 2001US-0318118P.
PR 12-SEP-2001; 2001US-0318740P.
PR 19-SEP-2001; 2001US-0323379P.
PR 18-OCT-2001; 2001US-0330245P.
PR 18-OCT-2001; 2001US-0330308P.
PR 14-NOV-2001; 2001US-0332701P.
XX
PA (CURA-) CURAGEN CORP.
XX
PI Tchernev VT, Spytek KA, Zerhusen BD, Patturajan M, Shimkets RA;
PI Li L, Gangolli EA, Padigaru M, Anderson DW, Rastelli L, Miller CE;
PI Gerlach VL, Taupier RJ, Gusev VY, Colman SD, Wolenc AR, Pena CEA;
PI Furtak K, Grosse WM, Alsobrook JP, Lepley DM, Rieger DK, Burgess CE;
XX
DR WPI; 2002-706998/76.
XX
PT New NOVX polypeptides and nucleic acids, useful for preventing or
PT treating NOVX-associated disorders, e.g. cancer, cardiomyopathy,
PT atherosclerosis, or diabetes, and in chromosome mapping, tissue typing or
PT pharmacogenomics.
XX
PS Disclosure; SEQ ID NO 535; 1498pp; English.
XX
CC This invention relates to a novel nucleic acids, and encoded polypeptides
CC thereof, which have properties related to the stimulation of biochemical
CC or physiological responses in a cell, tissue, organ or organism.
CC Specifically, it refers to the use of biologically active fragments for
CC diagnostic and prognostic assays and furthermore in the treatment of
CC diverse pathological conditions. The present invention describes novel
CC human and murine NOVX proteins, as well as methods to modulate their
CC expression using antisense oligos, ribozymes and peptide nucleic acids.
CC The NOVX polypeptides, polynucleotides and antibodies are useful in
CC treating or preventing NOVX-associated disorders, e.g. cardiomyopathy,
CC atherosclerosis, cancer and diabetes. Furthermore, they may be used in
CC treating or preventing diseases such as inflammation, autoimmune
CC disorders, allergies, blood disorders, acquired immunodeficiency syndrome
CC (AIDS), obesity, asthma, immunoglobulin (Ig)A nephropathy, cirrhosis,
CC arthritis, Alzheimer's disease, infections, stroke, muscular dystrophy
CC and epilepsy. Accordingly, these molecules have many activities including
CC cytostatic, cardiant, antiinflammatory, immunosuppressive, antiallergic,
CC haemostatic, anti-HIV, antidiabetic, antiarteriosclerotic, anorectic,
CC antiasthmatic, nephrotropic, antiarthritic, hepatotropic,
CC neuroprotective, nootropic, antibacterial, virucide, antiparasitic,
CC relaxant and anticonvulsant. In addition, they are useful in screening
CC assays to identify small molecules that modulate or inhibit, for example,
CC neurogenesis, wound healing and angiogenesis. The nucleic acids are also
CC used as in chromosome mapping, tissue typing, preventive medicine and
CC pharmacogenomics. This polypeptide is a homologue of a human NOVX protein
CC of the invention.
XX
SQ Sequence 322 AA;

Query Match 97.4%; Score 1647; DB 5; Length 322;
Best Local Similarity 97.5%; Pred. No. 1.5e-170;
Matches 314; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

```
Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:|||||||| ||| ||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322
```

RESULT 6
ADC86821
ID ADC86821 standard; protein; 322 AA.
XX
AC ADC86821;
XX
DT 01-JAN-2004 (first entry)
XX
DE Human GPCR protein SEQ ID NO:1274.
XX
KW human; GPCR; guanosine triphosphate-binding protein coupled receptor;
KW gene therapy.
XX
OS Homo sapiens.
XX
PN EP1270724-A2.
XX
PD 02-JAN-2003.
XX
PF 18-JUN-2002; 2002EP-00013517.
XX
PR 18-JUN-2001; 2001JP-00246789.
XX
PA (NAAD-) NAT INST ADVANCED IND SCI & TECHNOLOGY.
PA (ADSC-) CENT ADVANCED SCI & TECHNOLOGY INCUBATIO.
XX
PI Suwa M, Asai K, Akiyama Y, Aburatani H;
XX
DR WPI; 2003-315783/31.
DR N-PSDB; ADC86820.
XX
PT New polynucleotide, useful for preparing a composition for treating a
PT patient in need of increased or suppressed activity or expression of the
PT guanosine triphosphate-binding protein coupled receptor.
XX
PS Claim 2; SEQ ID NO 1274; 28pp; English.
XX
CC The invention relates to a novel polynucleotide encoding a guanosine
CC triphosphate-binding protein coupled receptor (GPCR). A polynucleotide of
CC the invention may have a use in gene therapy. The polynucleotide and
CC polypeptide are useful for preparing a composition for treating a patient
CC in need of increased or suppressed activity or expression of the
CC guanosine triphosphate-binding protein coupled receptor. The protein
CC sequences shown in ADC85549-ADC87617 represent GPCR's of the invention.
XX
SQ Sequence 322 AA;

Query Match 97.4%; Score 1647; DB 7; Length 322;

```
  Best Local Similarity   97.5%;  Pred. No. 1.5e-170;
  Matches  314;  Conservative    4;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:|||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              ||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 7
ADO44604
ID   ADO44604 standard; protein; 322 AA.
XX
AC   ADO44604;
XX
DT   29-JUL-2004  (first entry)
XX
DE   Human HI7T213 protein.
XX
KW   HI7T213; transgenic; G protein-coupled receptor; GPCR; ophthalmological;
KW   cytostatic; nephrotropic; antiinflammatory; dermatological; analgesic;
KW   vulnerary; neuroprotective; human; receptor.
XX
OS   Homo sapiens.
XX
PN   WO2004039972-A1.
XX
PD   13-MAY-2004.
XX
PF   28-OCT-2003; 2003WO-JP013781.
XX
PR   29-OCT-2002; 2002JP-00314141.
XX
PA   (TAKE ) TAKEDA CHEM IND LTD.
XX
PI   Kaisho Y,  Watanabe T,  Yasuhara Y,  Mori I,  Taketomi S;
XX
DR   WPI; 2004-376191/35.
DR   N-PSDB; ADO44605.
XX
PT   HI7T213 protein, encoded DNA and transgenic animals for clarifying
PT   pathological mechanism, developing therapeutic methods and screening
PT   preventives or remedies for related diseases e.g. cataract, cancer, and
PT   dermatitis.
XX
PS   Claim 3; SEQ ID NO 3; 161pp; Japanese.
XX
CC   The invention relates to a non-human mammal that carries a DNA integrated
CC   with a foreign HI7T213 or its mutant gene, or a part of it. The non-human
CC   animal is particularly a rat. Such gene shows phenotypes of e.g. cataract
CC   onset, transient skin rash and proliferation-promoting activity. The
CC   foreign HI7T213 gene is a gene that encodes a G protein-coupled receptor
CC   (GPCR) protein HI7T213. The protein, its encoded DNA and constructed
CC   transgenic animals are useful for clarifying pathological mechanism,
CC   developing therapeutic methods and screening preventives or remedies for
CC   related diseases e.g. cataract, cancer, and dermatitis. The present
CC   sequence represents a human HI7T213 protein.
XX
SQ   Sequence 322 AA;

  Query Match             97.4%;  Score 1647;  DB 8;  Length 322;
  Best Local Similarity   97.5%;  Pred. No. 1.5e-170;
  Matches  314;  Conservative    4;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:|||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              ||||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 8
AAY90761
ID   AAY90761 standard; protein; 322 AA.
XX
AC   AAY90761;
XX
DT   18-AUG-2000  (first entry)
XX
DE   Human G protein-coupled receptor hHI7T213 SEQ ID NO:1.
XX
KW   Human; G protein-coupled receptor; hippocampus; diagnosis; screening;
KW   genetic disease; cellular function regulation.
XX
OS   Homo sapiens.
XX
PN   WO200020455-A1.
XX
PD   13-APR-2000.
XX
PF   30-SEP-1999;   99WO-JP005366.
XX
PR   01-OCT-1998;   98JP-00279535.
XX
PA   (TAKE ) TAKEDA CHEM IND LTD.
XX
PI   Watanabe T,  Terao Y,  Matsui H;
XX
DR   WPI; 2000-303747/26.
DR   N-PSDB; AAA29811.
XX
PT   Human-derived G protein-coupled protein and encoding nucleic acid, useful
PT   e.g. in determining ligands and treatment of diseases associated with
PT   dysfunction of the protein.
XX
PS   Claim 1; Page 90-91; 97pp; Japanese.
XX
CC   The present sequence represents a human-derived G protein-coupled protein
CC   designated hHI7T213, which is isolated from the human hippocampus. The G
```

```
CC   protein-coupled receptor can be used for preventing, treating and
CC   diagnosing genetic diseases associated with G protein-coupled protein,
CC   and for regulating cellular functions. The protein can be used to prevent
CC   and treat disorders associated with G protein-coupled protein gene
CC   dysfunction. It can also be used to identify G protein-coupled protein
CC   ligands and generating antibodies and antisera against the protein. It is
CC   also useful in constructing recombinant receptor protein expression
CC   systems, developing receptor-binding assay systems and screening drug
CC   candidates, and can be used as a probe in the genetic diagnosis of G
CC   protein-coupled protein disorders
XX
SQ   Sequence 322 AA;

  Query Match             97.1%;  Score 1642;  DB 3;  Length 322;
  Best Local Similarity   97.2%;  Pred. No. 5.2e-170;
  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||:||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              ||||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 9
ABJ04077
ID   ABJ04077 standard; protein; 322 AA.
XX
AC   ABJ04077;
XX
DT   11-OCT-2002  (first entry)
XX
DE   Human G protein coupled receptor hRUP37.
XX
KW   Human; G-protein coupled receptor; GPCR; hRUP28; hRUP29; hRUP30; hRUP31;
KW   hRUP32; hRUP33; hRUP34; hRUP35; hRUP36; hRUP37.
XX
OS   Homo sapiens.
XX
PN   WO200242461-A2.
XX
PD   30-MAY-2002.
XX
PF   26-NOV-2001; 2001WO-US044386.
XX
PR   27-NOV-2000; 2000US-0253404P.
PR   12-DEC-2000; 2000US-0255366P.
PR   20-FEB-2001; 2001US-0270266P.
PR   20-FEB-2001; 2001US-0270286P.
PR   06-APR-2001; 2001US-0282032P.
PR   06-APR-2001; 2001US-0282356P.
PR   06-APR-2001; 2001US-0282358P.
PR   06-APR-2001; 2001US-0282365P.
PR   14-MAY-2001; 2001US-0290917P.
PR   31-JUL-2001; 2001US-0309208P.
XX
PA   (AREN-) ARENA PHARM INC.
XX
PI   Chen R,  Chu ZL,  Dang HT,  Lowitz KP,  Pride C;
XX
DR   WPI; 2002-566565/60.
DR   N-PSDB; ABT04875.
XX
PT   Novel endogenous and non-endogenous versions of G protein-coupled
PT   receptor useful for identification of candidate compounds as receptor
PT   agonists or antagonists for use as therapeutic agents.
XX
PS   Claim 37; Page 75-76; 84pp; English.
XX
CC   The present invention provides the protein and coding sequences of
CC   several human G-protein coupled receptors (GPCRs). These can be used in
CC   the identification of candidate compounds as receptor agonists or inverse
CC   agonists having applicability as therapeutic agents. The present sequence
CC   is a GPCR protein of the invention
XX
SQ   Sequence 322 AA;

  Query Match             97.1%;  Score 1642;  DB 5;  Length 322;
  Best Local Similarity   97.2%;  Pred. No. 5.2e-170;
  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||:||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              ||||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 10
AAE21296
ID   AAE21296 standard; protein; 322 AA.
XX
AC   AAE21296;
XX
DT   01-JUL-2002  (first entry)
XX
DE   Human MrgX3 (mas-related gene) protein.
XX
KW   Human; mas-related gene; G-protein coupled receptor; drg-12 protein;
KW   receptor; sensory perception; pain; analgesic; MrgX3.
XX
OS   Homo sapiens.
XX
PN   WO200183555-A2.
XX
PD   08-NOV-2001.
XX
PF   04-MAY-2001; 2001WO-US014519.
XX
PR   04-MAY-2000; 2000US-0202027P.
```

```
PR   01-AUG-2000; 2000US-0222344P.
PR   03-NOV-2000; 2000US-00704707.
PR   19-APR-2001; 2001US-0285493P.
XX
PA   (CALY ) CALIFORNIA INST OF TECHNOLOGY.
XX
PI   Anderson DJ,  Dong X,  Zylka M,  Han S,  Simon M;
XX
DR   WPI; 2002-171346/22.
DR   N-PSDB; AAD33751.
XX
PT   Isolated polypeptide, Mrg, which is a G-protein coupled receptor and an
PT   isolated polypeptide, drg-12, which is also a receptor, useful for
PT   identifying agonists or antagonists for treating pain.
XX
PS   Claim 16; Page 130; 185pp; English.
XX
CC   The invention relates to Mrg (mas-related gene) protein, which is a G-
CC   protein coupled receptor and drg-12 protein, which is a receptor. The
CC   invention is useful for identifying compounds that bind to it, especially
CC   agonists or antagonists. Administration of an agent (e.g. the identified
CC   agonist) that increases the expression of Mrg in a mammal may be used for
CC   treating impaired sensory perception in a mammal, especially pain. The
CC   antagonist may also be useful for treating impaired sensory perception in
CC   a mammal. The present sequence is human MrgX3 protein
XX
SQ   Sequence 322 AA;

  Query Match             97.1%;  Score 1642;  DB 5;  Length 322;
  Best Local Similarity   97.2%;  Pred. No. 5.2e-170;
  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:|||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||:||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 11
ADI16993
ID   ADI16993 standard; protein; 322 AA.
XX
AC   ADI16993;
XX
DT   15-APR-2004  (first entry)
XX
DE   Human NOVX protein homologue SeqID 529.
XX
KW   human; NOVX; cardiomyopathy; atherosclerosis; cancer; diabetes;
KW   inflammation; autoimmune disorder; allergy; blood disorder;
KW   acquired immunodeficiency syndrome; AIDS; obesity; asthma;
KW   immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis;
KW   Alzheimer's disease; infection; str.
XX
OS   Homo sapiens.
XX
PN   WO200268649-A2.
XX
PD   06-SEP-2002.
XX
PF   31-JAN-2002; 2002WO-US002785.
XX
PR   31-JAN-2001; 2001US-0265395P.
PR   31-JAN-2001; 2001US-0265412P.
PR   31-JAN-2001; 2001US-0265514P.
PR   31-JAN-2001; 2001US-0265517P.
PR   02-FEB-2001; 2001US-0266406P.
PR   05-FEB-2001; 2001US-0266767P.
PR   07-FEB-2001; 2001US-0266975P.
PR   07-FEB-2001; 2001US-0267057P.
PR   08-FEB-2001; 2001US-0267459P.
PR   09-FEB-2001; 2001US-0267823P.
PR   15-FEB-2001; 2001US-0268974P.
PR   26-FEB-2001; 2001US-0271664P.
PR   27-FEB-2001; 2001US-0271839P.
PR   27-FEB-2001; 2001US-0271855P.
PR   02-MAR-2001; 2001US-0272788P.
PR   02-MAR-2001; 2001US-0273046P.
PR   14-MAR-2001; 2001US-0275925P.
PR   14-MAR-2001; 2001US-0275947P.
PR   14-MAR-2001; 2001US-0275950P.
PR   14-MAR-2001; 2001US-0275989P.
PR   15-MAR-2001; 2001US-0276448P.
PR   15-MAR-2001; 2001US-0276450P.
PR   16-MAR-2001; 2001US-0276397P.
PR   16-MAR-2001; 2001US-0276768P.
PR   20-MAR-2001; 2001US-0278652P.
PR   26-MAR-2001; 2001US-0278775P.
PR   26-MAR-2001; 2001US-0278778P.
PR   29-MAR-2001; 2001US-0279882P.
PR   29-MAR-2001; 2001US-0279884P.
PR   30-MAR-2001; 2001US-0280147P.
PR   11-APR-2001; 2001US-0282992P.
PR   11-APR-2001; 2001US-0283083P.
PR   20-APR-2001; 2001US-0285133P.
PR   23-APR-2001; 2001US-0285749P.
PR   03-MAY-2001; 2001US-0288327P.
PR   03-MAY-2001; 2001US-0288504P.
PR   29-MAY-2001; 2001US-0294047P.
PR   30-MAY-2001; 2001US-0294473P.
PR   08-JUN-2001; 2001US-0296964P.
PR   18-JUN-2001; 2001US-0298959P.
PR   19-JUN-2001; 2001US-0299324P.
PR   13-AUG-2001; 2001US-0312020P.
PR   16-AUG-2001; 2001US-0312889P.
PR   16-AUG-2001; 2001US-0312908P.
PR   21-AUG-2001; 2001US-0313390P.
PR   28-AUG-2001; 2001US-0315470P.
PR   31-AUG-2001; 2001US-0316447P.
PR   07-SEP-2001; 2001US-0318115P.
PR   07-SEP-2001; 2001US-0318118P.
PR   12-SEP-2001; 2001US-0318740P.
PR   19-SEP-2001; 2001US-0323379P.
PR   18-OCT-2001; 2001US-0330245P.
PR   18-OCT-2001; 2001US-0330308P.
PR   14-NOV-2001; 2001US-0332701P.
XX
PA   (CURA-) CURAGEN CORP.
XX
PI   Tchernev VT,  Spytek KA,  Zerhusen BD,  Patturajan M,  Shimkets RA;
PI   Li L,  Gangolli EA,  Padigaru M,  Anderson DW,  Rastelli L,  Miller CE;
PI   Gerlach VL,  Taupier RJ,  Gusev VY,  Colman SD,  Wolenc AR,  Pena CEA;
PI   Furtak K,  Grosse WM,  Alsobrook JP,  Lepley DM,  Rieger DK,  Burgess CE;
XX
DR   WPI; 2002-706998/76.
XX
PT   New NOVX polypeptides and nucleic acids, useful for preventing or
```

PT treating NOVX-associated disorders, e.g. cancer, cardiomyopathy,
PT atherosclerosis, or diabetes, and in chromosome mapping, tissue typing or
PT pharmacogenomics.
XX
PS Disclosure; SEQ ID NO 529; 1498pp; English.
XX
CC This invention relates to a novel nucleic acids, and encoded polypeptides
CC thereof, which have properties related to the stimulation of biochemical
CC or physiological responses in a cell, tissue, organ or organism.
CC Specifically, it refers to the use of biologically active fragments for
CC diagnostic and prognostic assays and furthermore in the treatment of
CC diverse pathological conditions. The present invention describes novel
CC human and murine NOVX proteins, as well as methods to modulate their
CC expression using antisense oligos, ribozymes and peptide nucleic acids.
CC The NOVX polypeptides, polynucleotides and antibodies are useful in
CC treating or preventing NOVX-associated disorders, e.g. cardiomyopathy,
CC atherosclerosis, cancer and diabetes. Furthermore, they may be used in
CC treating or preventing diseases such as inflammation, autoimmune
CC disorders, allergies, blood disorders, acquired immunodeficiency syndrome
CC (AIDS), obesity, asthma, immunoglobulin (Ig)A nephropathy, cirrhosis,
CC arthritis, Alzheimer's disease, infections, stroke, muscular dystrophy
CC and epilepsy. Accordingly, these molecules have many activities including
CC cytostatic, cardiant, antiinflammatory, immunosuppressive, antiallergic,
CC haemostatic, anti-HIV, antidiabetic, antiarteriosclerotic, anorectic,
CC antiasthmatic, nephrotropic, antiarthritic, hepatotropic,
CC neuroprotective, nootropic, antibacterial, virucide, antiparasitic,
CC relaxant and anticonvulsant. In addition, they are useful in screening
CC assays to identify small molecules that modulate or inhibit, for example,
CC neurogenesis, wound healing and angiogenesis. The nucleic acids are also
CC used as in chromosome mapping, tissue typing, preventive medicine and
CC pharmacogenomics. This polypeptide is a homologue of a human NOVX protein
CC of the invention.
XX
SQ Sequence 322 AA;

Query Match 97.1%; Score 1642; DB 5; Length 322;
Best Local Similarity 97.2%; Pred. No. 5.2e-170;
Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

```
Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:|||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||:||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322
```

RESULT 12
ADI16998
ID ADI16998 standard; protein; 322 AA.
XX
AC ADI16998;
XX
DT 15-APR-2004 (first entry)
XX
DE Human NOVX protein homologue SeqID 534.
XX
KW human; NOVX; cardiomyopathy; atherosclerosis; cancer; diabetes;
KW inflammation; autoimmune disorder; allergy; blood disorder;
KW acquired immunodeficiency syndrome; AIDS; obesity; asthma;
KW immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis;
KW Alzheimer's disease; infection; str.
XX
OS Homo sapiens.
XX
PN WO200268649-A2.
XX
PD 06-SEP-2002.
XX
PF 31-JAN-2002; 2002WO-US002785.
XX
PR 31-JAN-2001; 2001US-0265395P.
PR 31-JAN-2001; 2001US-0265412P.
PR 31-JAN-2001; 2001US-0265514P.
PR 31-JAN-2001; 2001US-0265517P.
PR 02-FEB-2001; 2001US-0266406P.
PR 05-FEB-2001; 2001US-0266767P.
PR 07-FEB-2001; 2001US-0266975P.
PR 07-FEB-2001; 2001US-0267057P.
PR 08-FEB-2001; 2001US-0267459P.
PR 09-FEB-2001; 2001US-0267823P.
PR 15-FEB-2001; 2001US-0268974P.
PR 26-FEB-2001; 2001US-0271664P.
PR 27-FEB-2001; 2001US-0271839P.
PR 27-FEB-2001; 2001US-0271855P.
PR 02-MAR-2001; 2001US-0272788P.
PR 02-MAR-2001; 2001US-0273046P.
PR 14-MAR-2001; 2001US-0275925P.
PR 14-MAR-2001; 2001US-0275947P.
PR 14-MAR-2001; 2001US-0275950P.
PR 14-MAR-2001; 2001US-0275989P.
PR 15-MAR-2001; 2001US-0276448P.
PR 15-MAR-2001; 2001US-0276450P.
PR 16-MAR-2001; 2001US-0276397P.
PR 16-MAR-2001; 2001US-0276768P.
PR 20-MAR-2001; 2001US-0278652P.
PR 26-MAR-2001; 2001US-0278775P.
PR 26-MAR-2001; 2001US-0278778P.
PR 29-MAR-2001; 2001US-0279882P.
PR 29-MAR-2001; 2001US-0279884P.
PR 30-MAR-2001; 2001US-0280147P.
PR 11-APR-2001; 2001US-0282992P.
PR 11-APR-2001; 2001US-0283083P.
PR 20-APR-2001; 2001US-0285133P.
PR 23-APR-2001; 2001US-0285749P.
PR 03-MAY-2001; 2001US-0288327P.
PR 03-MAY-2001; 2001US-0288504P.
PR 29-MAY-2001; 2001US-0294047P.
PR 30-MAY-2001; 2001US-0294473P.
PR 08-JUN-2001; 2001US-0296964P.
PR 18-JUN-2001; 2001US-0298959P.
PR 19-JUN-2001; 2001US-0299324P.
PR 13-AUG-2001; 2001US-0312020P.
PR 16-AUG-2001; 2001US-0312889P.
PR 16-AUG-2001; 2001US-0312908P.
PR 21-AUG-2001; 2001US-0313390P.
PR 28-AUG-2001; 2001US-0315470P.
PR 31-AUG-2001; 2001US-0316447P.
PR 07-SEP-2001; 2001US-0318115P.
PR 07-SEP-2001; 2001US-0318118P.
PR 12-SEP-2001; 2001US-0318740P.
PR 19-SEP-2001; 2001US-0323379P.
PR 18-OCT-2001; 2001US-0330245P.
PR 18-OCT-2001; 2001US-0330308P.
PR 14-NOV-2001; 2001US-0332701P.
XX
PA (CURA-) CURAGEN CORP.
XX
PI Tchernev VT, Spytek KA, Zerhusen BD, Patturajan M, Shimkets RA;

PI Li L, Gangolli EA, Padigaru M, Anderson DW, Rastelli L, Miller CE;
PI Gerlach VL, Taupier RJ, Gusev VY, Colman SD, Wolenc AR, Pena CEA;
PI Furtak K, Grosse WM, Alsobrook JP, Lepley DM, Rieger DK, Burgess CE;
XX
DR WPI; 2002-706998/76.
XX
PT New NOVX polypeptides and nucleic acids, useful for preventing or
PT treating NOVX-associated disorders, e.g. cancer, cardiomyopathy,
PT atherosclerosis, or diabetes, and in chromosome mapping, tissue typing or
PT pharmacogenomics.
XX
PS Disclosure; SEQ ID NO 534; 1498pp; English.
XX
CC This invention relates to a novel nucleic acids, and encoded polypeptides
CC thereof, which have properties related to the stimulation of biochemical
CC or physiological responses in a cell, tissue, organ or organism.
CC Specifically, it refers to the use of biologically active fragments for
CC diagnostic and prognostic assays and furthermore in the treatment of
CC diverse pathological conditions. The present invention describes novel
CC human and murine NOVX proteins, as well as methods to modulate their
CC expression using antisense oligos, ribozymes and peptide nucleic acids.
CC The NOVX polypeptides, polynucleotides and antibodies are useful in
CC treating or preventing NOVX-associated disorders, e.g. cardiomyopathy,
CC atherosclerosis, cancer and diabetes. Furthermore, they may be used in
CC treating or preventing diseases such as inflammation, autoimmune
CC disorders, allergies, blood disorders, acquired immunodeficiency syndrome
CC (AIDS), obesity, asthma, immunoglobulin (Ig)A nephropathy, cirrhosis,
CC arthritis, Alzheimer's disease, infections, stroke, muscular dystrophy
CC and epilepsy. Accordingly, these molecules have many activities including
CC cytostatic, cardiant, antiinflammatory, immunosuppressive, antiallergic,
CC haemostatic, anti-HIV, antidiabetic, antiarteriosclerotic, anorectic,
CC antiasthmatic, nephrotropic, antiarthritic, hepatotropic,
CC neuroprotective, nootropic, antibacterial, virucide, antiparasitic,
CC relaxant and anticonvulsant. In addition, they are useful in screening
CC assays to identify small molecules that modulate or inhibit, for example,
CC neurogenesis, wound healing and angiogenesis. The nucleic acids are also
CC used as in chromosome mapping, tissue typing, preventive medicine and
CC pharmacogenomics. This polypeptide is a homologue of a human NOVX protein
CC of the invention.
XX
SQ Sequence 322 AA;

Query Match 97.1%; Score 1642; DB 5; Length 322;
Best Local Similarity 97.2%; Pred. No. 5.2e-170;
Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

```
Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:|||||||||| ||| ||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||:||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322
```

RESULT 13
ABP81750

ID ABP81750 standard; protein; 322 AA.
XX
AC ABP81750;
XX
DT 04-MAR-2003 (first entry)
XX
DE Human G protein-coupled receptor MrgX3 protein SEQ ID NO:674.
XX
KW G protein-coupled receptor; GPCR; antigenic peptide; gene therapy;
KW G protein-coupled receptor modulator; antibody; immune-related disease;
KW growth-related disease; cell regeneration-related disease; AIDS; cancer;
KW immunological-related cell proliferative disease; autoimmune disease;
KW Alzheimer's disease; atherosclerosis; infection; osteoarthritis; allergy;
KW osteoporosis; cardiomyopathy; inflammation; Crohn's disease; diabetes;
KW graft versus host disease; Parkinson's disease; multiple sclerosis; pain;
KW psoriasis; anxiety; depression; schizophrenia; dementia; memory loss;
KW mental retardation; epilepsy; asthma; tuberculosis; obesity; nausea;
KW hypertension; hypotension; renal disorder; rheumatoid arthritis; trauma;
KW ulcer.
XX
OS Homo sapiens.
XX
PN WO200261087-A2.
XX
PD 08-AUG-2002.
XX
PF 19-DEC-2001; 2001WO-US050107.
XX
PR 19-DEC-2000; 2000US-0257144P.
XX
PA (LIFE-) LIFESPAN BIOSCIENCES INC.
XX
PI Burmer GC, Roush CL, Brown JP;
XX
DR WPI; 2003-046718/04.
DR N-PSDB; ABZ42595.
XX
PT New isolated antigenic peptides e.g., for G protein-coupled receptors
PT (GPCR), useful for diagnosing and designing drugs for treating conditions
PT in which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or
PT autoimmune diseases.
XX
PS Disclosure; Fig 1; 523pp; English.
XX
CC The present invention describes antigenic peptides (I) comprising: (a)
CC any one of 1601 sequences (see ABP82019 to ABP83619) of 12-24 amino
CC acids. Also described: (1) an assay for the detection of a particular G
CC protein-coupled receptor (GPCR) or a candidate polypeptide in a sample;
CC and (2) an isolated antibody having high specificity and high affinity or
CC avidity for a particular GPCR. (I) can be used as GPCR modulators and in
CC gene therapy. The antigenic peptides for GPCRs are useful in detecting an
CC antibody against a particular GPCR, and in the production of specific
CC antibodies. The peptides and antibodies are also useful for detecting the
CC presence or absence of corresponding GPCRs. The antigenic peptides for
CC GPCRs and antibodies are useful for diagnosing and designing drugs for
CC treating immune-related diseases, growth-related diseases, cell
CC regeneration-related disease, immunological-related cell proliferative
CC diseases, or autoimmune diseases, e.g. AIDS, Alzheimer's disease,
CC atherosclerosis, bacterial, fungal, protozoan or viral infections,
CC osteoarthritis, osteoporosis, cancer, cardiomyopathy, chronic and acute
CC inflammation, allergies, Crohn's disease, diabetes, graft versus host
CC disease, Parkinson's disease, multiple sclerosis, pain, psoriasis,
CC anxiety, depression, schizophrenia, dementia, mental retardation, memory
CC loss, epilepsy, asthma, tuberculosis, obesity, nausea, hypertension,
CC hypotension, renal disorders, rheumatoid arthritis, trauma, ulcers, or
CC any other disorder in which GPCRs are involved. The antibodies may be
CC used in immunoassays and immunodiagnosis. ABZ42523 to ABZ42869 encode
CC GPCR proteins given in ABP81675 to ABP82018, which are used in the
CC exemplification of the present invention
XX
SQ Sequence 322 AA;

Query Match 97.1%; Score 1642; DB 6; Length 322;

```
  Best Local Similarity   97.2%;  Pred. No. 5.2e-170;
  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||:||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              ||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 14
ADH08535
ID   ADH08535 standard; protein; 322 AA.
XX
AC   ADH08535;
XX
DT   25-MAR-2004  (first entry)
XX
DE   MrgX3.
XX
KW   mas-related gene D; MrgD; Analgesic; Vulnerary; Ophthalmological;
KW   sensory perception; glaucoma; Mrg.
XX
OS   Mus musculus.
XX
PN   WO2004003133-A1.
XX
PD   08-JAN-2004.
XX
PF   13-MAY-2003; 2003WO-US015004.
XX
PR   26-JUN-2002; 2002US-00183116.
XX
PA   (CALY ) CALIFORNIA INST OF TECHNOLOGY.
XX
PI   Anderson DJ,  Dong X,  Zylka M,  Han S,  Simon MI;
XX
DR   WPI; 2004-083025/08.
DR   N-PSDB; ADH08534.
XX
PT   New mas-related gene D polypeptides, useful as therapeutics or in
PT   identifying agonists or antagonists that alter pain perception in a
PT   mammal for treating impaired sensory perception, e.g. chronic intractable
PT   pain or neuropathic pain.
XX
PS   Disclosure; SEQ ID NO 31; 220pp; English.
XX
CC   The present invention relates to an isolated mas-related gene D (MrgD)
CC   polypeptide. The MrgD polypeptides are useful as therapeutics or for
CC   identifying compounds, i.e. agonists or antagonists, that alter pain
CC   perception in a mammal. The compounds are useful for treating impaired
CC   sensory perception, e.g. chronic intractable pain or neuropathic pain,
CC   promoting wound healing, restoring normal sensitivity following injury,
CC   or treating ocular conditions, particularly those associated with
CC   pressure such as glaucoma. The Mrg genes or proteins may be used as
CC   molecular probes for the detection of cells or tissues related to or
CC   involved with sensory perception. The present sequence represents a MrgA
CC   (Mrg subfamily) protein.
XX
SQ   Sequence 322 AA;

  Query Match             97.1%;  Score 1642;  DB 8;  Length 322;
  Best Local Similarity   97.2%;  Pred. No. 5.2e-170;
  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||:||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              ||||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 15
ADO44602
ID   ADO44602 standard; protein; 322 AA.
XX
AC   ADO44602;
XX
DT   29-JUL-2004  (first entry)
XX
DE   Human HI7T213 protein.
XX
KW   HI7T213; transgenic; G protein-coupled receptor; GPCR; ophthalmological;
KW   cytostatic; nephrotropic; antiinflammatory; dermatological; analgesic;
KW   vulnerary; neuroprotective; human; receptor.
XX
OS   Homo sapiens.
XX
PN   WO2004039972-A1.
XX
PD   13-MAY-2004.
XX
PF   28-OCT-2003; 2003WO-JP013781.
XX
PR   29-OCT-2002; 2002JP-00314141.
XX
PA   (TAKE ) TAKEDA CHEM IND LTD.
XX
PI   Kaisho Y,  Watanabe T,  Yasuhara Y,  Mori I,  Taketomi S;
XX
DR   WPI; 2004-376191/35.
DR   N-PSDB; ADO44603.
XX
PT   HI7T213 protein, encoded DNA and transgenic animals for clarifying
PT   pathological mechanism, developing therapeutic methods and screening
PT   preventives or remedies for related diseases e.g. cataract, cancer, and
PT   dermatitis.
XX
PS   Claim 3; SEQ ID NO 1; 161pp; Japanese.
XX
```

CC The invention relates to a non-human mammal that carries a DNA integrated
CC with a foreign HI7T213 or its mutant gene, or a part of it. The non-human
CC animal is particularly a rat. Such gene shows phenotypes of e.g. cataract
CC onset, transient skin rash and proliferation-promoting activity. The
CC foreign HI7T213 gene is a gene that encodes a G protein-coupled receptor
CC (GPCR) protein HI7T213. The protein, its encoded DNA and constructed
CC transgenic animals are useful for clarifying pathological mechanism,
CC developing therapeutic methods and screening preventives or remedies for
CC related diseases e.g. cataract, cancer, and dermatitis. The present
CC sequence represents a human HI7T213 protein.
XX
SQ Sequence 322 AA;

Query Match 97.1%; Score 1642; DB 8; Length 322;
Best Local Similarity 97.2%; Pred. No. 5.2e-170;
Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

```
Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:|||||||| ||| ||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||:||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322
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Search completed: February 3, 2006, 20:27:05
Job time : 205 secs

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OM protein - protein search, using sw model

Run on: February 3, 2006, 20:27:24 ; Search time 43 Seconds
(without alignments)
720.507 Million cell updates/sec

Title: US-10-747-702-3
Perfect score: 1691
Sequence: 1 MDPTIPVLGTKLTPINGREE.....EGGGWLPQETLELSGSKLEQ 322

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_80:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	453	26.8	378	2	A39485	transforming prote
2	440.5	26.0	324	1	TVRTAS	transforming prote
3	429.5	25.4	325	1	TVHUAS	transforming prote
4	422.5	25.0	324	2	S51001	transforming prote
5	367.5	21.7	343	2	A35639	G protein-coupled
6	237	14.0	355	2	JQ1231	interleukin-8 rece
7	236.5	14.0	354	2	A23669	interleukin-8 rece
8	228	13.5	353	2	C42009	FMLP-related recep
9	222.5	13.2	369	2	D41795	somatostatin recep
10	222.5	13.2	369	2	A45291	somatostatin recep
11	217.5	12.9	346	2	S29248	somatostatin recep
12	216.5	12.8	358	2	A53752	interleukin-8 rece
13	215.5	12.7	360	2	A53611	interleukin-8 rece
14	215.5	12.7	363	2	I57940	somatostatin recep
15	214	12.7	351	2	B42009	FMLP-related recep
16	207	12.2	369	2	JC2083	somatostatin recep
17	206.5	12.2	355	2	A55733	G protein-coupled
18	203.5	12.0	369	2	B41795	somatostatin recep
19	203.5	12.0	473	2	JC5835	anaphylatoxin C3a
20	203	12.0	356	2	S42096	interleukin-8 rece
21	202	11.9	363	2	I57955	somatostatin recep
22	202	11.9	364	2	JN0763	somatostatin recep
23	201	11.9	380	2	S36143	kappa opioid recep
24	200	11.8	380	2	A48227	kappa opioid recep
25	200	11.8	388	2	JN0605	somatostatin recep
26	197	11.6	380	2	JC2434	kappa opioid recep
27	196	11.6	350	1	A37963	complement C5a ana
28	195.5	11.6	504	2	A41783	tachykinin recepto
29	195	11.5	333	2	I65989	G protein-coupled
30	195	11.5	352	2	A46520	N-formyl peptide r
31	194.5	11.5	371	2	JC5498	G protein-coupled
32	194	11.5	380	2	A55259	kappa opioid recep
33	192.5	11.4	384	2	A47249	brain-specific som
34	191	11.3	380	2	JC2338	kappa opioid recep
35	190	11.2	384	2	JC4629	somatostatin recep
36	189	11.2	364	2	A49542	N-formyl peptide c
37	188.5	11.1	352	1	S27357	complement C5a ana
38	188.5	11.1	375	2	JC5069	G protein-coupled
39	186.5	11.0	350	2	A39445	interleukin-8 rece
40	186.5	11.0	353	2	JC2492	G protein-coupled
41	183.5	10.9	371	2	JC5796	probable chemoattr
42	180.5	10.7	359	2	A48921	interleukin-8 rece
43	180.5	10.7	391	2	A41795	somatostatin recep
44	180.5	10.7	391	2	C41795	somatostatin recep
45	180.5	10.7	391	2	A39297	somatostatin recep

ALIGNMENTS

RESULT 1
A39485
transforming protein (mrg) - human
C;Species: Homo sapiens (man)
C;Date: 28-Feb-1992 #sequence_revision 17-Apr-1993 #text_change 09-Jul-2004
C;Accession: A39485
R;Monnot, C.; Weber, V.; Stinnakre, J.; Bihoreau, C.; Teutsch, B.; Corvol, P.; Clauser, E
Mol. Endocrinol. 5, 1477-1487, 1991
A;Title: Cloning and functional characterization of a novel mas-related gene, modulating
A;Reference number: A39485; MUID:92130997; PMID:1723144
A;Accession: A39485
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-378 <MON>
A;Cross-references: UNIPROT:P35410; UNIPARC:UPI000003B44C; GB:S78653; NID:g244209; PIDN:A
C;Superfamily: mas transforming protein
C;Keywords: G protein-coupled receptor; transmembrane protein

Query Match 26.8%; Score 453; DB 2; Length 378;
Best Local Similarity 36.7%; Pred. No. 5.9e-30;
Matches 105; Conservative 55; Mismatches 80; Indels 46; Gaps 9;

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Qy         36 IISLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAANFLFL--------------SGHI 80
              ::||  :  |  | ||| |    |   :|||:|||| : ::|               | :
Db         84 LVSLCGVLLNGTVFWLLCCG-ATNPYMVYILHLVAADVIYLCCSAVGFLQVTLLTYHGVV 142

Qy         81 IFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSS 140
               | |             ||||   | : : | :| ||||||: :|:|||| | ||:| |:
Db        143 FFIP--------DFLAILSP---FSPEVCLCLLVAISTERCVCVLFPIWYRCHRPKYTSN 191

Qy        141 VMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSD---FITIAWL--VFLCVVLCGSS 195
              |:| |:| |    :|:: :|  :        |         |: :: |    | :|:| ||
Db        192 VVCTLIWGLPFCINIVKSLFLTY--------WKHVKACVIFLKLSGLFHAILSLVMCVSS 243

Qy        196 LVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHL 255
              | ||:| || |::   ||:|  : ::  :|||  ||  :     : :  |:|:     :|
Db        244 LTLLIRFLCCSQQQKATRVYAVVQISAPMFLLWALPLSV-----APLITDFKMFVTTSYL 298

Qy        256 VSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEV 301
              :|:||  :|||||||||||||| |::: :::|:::|||| | |||
Db        299 ISLFL-IINSSANPIIYFFVGSLRKKRLKESLRVILQRALADKPEV 343
```

RESULT 2
TVRTAS
transforming protein mas - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 31-Dec-1989 #sequence_revision 31-Dec-1989 #text_change 09-Jul-2004
C;Accession: A31816
R;Young, D.; O'Neill, K.; Jessell, T.; Wigler, M.
Proc. Natl. Acad. Sci. U.S.A. 85, 5339-5342, 1988
A;Title: Characterization of the rat mas oncogene and its high-level expression in the hi

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A;Reference number: A31816; MUID:88276953; PMID:2455902
A;Accession: A31816
A;Molecule type: mRNA
A;Residues: 1-324 <YOU>
A;Cross-references: UNIPROT:P12526; UNIPARC:UPI0000043DE7; GB:J03823; NID:g205313; PIDN:
C;Genetics:
A;Gene: mas
C;Superfamily: mas transforming protein
C;Keywords: G protein-coupled receptor; transforming protein; transmembrane protein
F;31-47/Domain: transmembrane #status predicted <TM1>
F;72-88/Domain: transmembrane #status predicted <TM2>
F;149-165/Domain: transmembrane #status predicted <TM3>
F;185-204/Domain: transmembrane #status predicted <TM4>
F;225-243/Domain: transmembrane #status predicted <TM5>

  Query Match            26.0%;  Score 440.5;  DB 1;  Length 324;
  Best Local Similarity  38.0%;  Pred. No. 5.5e-29;
  Matches  108;  Conservative   56;  Mismatches   97;  Indels   23;  Gaps    9;

Qy         37 ISLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAANFLFLSGHIIFS-----PLPLINIR 91
              || :    | ::|| |  |||||  ::|| :|  |:   |    | |         | :
Db         41 ISPLGFVENGILLWFLCFRMRRNPFTVYITHLSIADISLLFCIFILSIDYALDYELSSGH 100

Qy         92 HPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSL 151
              :     ||    | |  || :|:||| |||||:|:|||| | ||:: |: :| ||||||
Db        101 YYTIVTLSVTFLFGYNTGLYLLTAISVERCLSVLYPIWYRCHRPKHQSAFVCALLWALSC 160

Qy        152 LRSILEWMFCDFLFSGANSVWCETSD------FITI-AWLVFLCVVLCGSSLVLLVRILC 204
              | : :|:: |  : ||  |      ||       || | ::|||  ::|  || :|:|:|
Db        161 LVTTMEYVMC--IDSGEES--HSQSDCRAVIIFIAILSFLVFTPLMLV-SSTILVVKIRK 215

Qy        205 GSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALN 264
              :     ::||: |::|:::||:  :|  : : |:       |   | ::| :|:  | :|
Db        216 NTWASHSSKLYIVIMVTIIIFLIFAMPMRVLYLLYYEY---WST-FGNLHNISLLFSTIN 271

Qy        265 SSANPIIYFFVGSFRQRQNRQNLKLVLQRALQD--TPEVDEGGG 306
              ||||| ||||||| :::: |::||:|| || :|   |   || |
Db        272 SSANPFIYFFVGSSKKKRFRESLKVVLTRAFKDEMQPRRQEGNG 315


RESULT 3
TVHUAS
transforming protein mas - human
C;Species: Homo sapiens (man)
C;Date: 04-Dec-1986 #sequence_revision 04-Dec-1986 #text_change 09-Jul-2004
C;Accession: A01375
R;Young, D.; Waitches, G.; Birchmeier, C.; Fasano, O.; Wigler, M.
Cell 45, 711-719, 1986
A;Title: Isolation and characterization of a new cellular oncogene encoding a protein wi
A;Reference number: A01375; MUID:86218084; PMID:3708691
A;Accession: A01375
A;Molecule type: DNA
A;Residues: 1-325 <YOU>
A;Cross-references: UNIPROT:P04201; UNIPARC:UPI0000050458; GB:M13150; NID:g187388; PIDN:
C;Genetics:
A;Gene: GDB:MAS1
A;Cross-references: GDB:120166; OMIM:165180
A;Map position: 6q24-6q27
C;Superfamily: mas transforming protein
C;Keywords: G protein-coupled receptor; glycoprotein; proto-oncogene; transforming prote
F;31-61/Domain: transmembrane #status predicted <TM1>
F;66-97/Domain: transmembrane #status predicted <TM2>
F;105-135/Domain: transmembrane #status predicted <TM3>
F;150-172/Domain: transmembrane #status predicted <TM4>
F;186-214/Domain: transmembrane #status predicted <TM5>
F;225-250/Domain: transmembrane #status predicted <TM6>
F;258-286/Domain: transmembrane #status predicted <TM7>
F;5,16,22,272/Binding site: carbohydrate (Asn) (covalent) #status predicted

  Query Match            25.4%;  Score 429.5;  DB 1;  Length 325;
  Best Local Similarity  34.7%;  Pred. No. 4.4e-28;
  Matches  107;  Conservative   63;  Mismatches  111;  Indels   27;  Gaps    8;

Qy          2 DPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNAV 61
              :||    |  : |  : |  :  :          || |    | ::|| |  |||||
Db         13 EPTNISTGRNASVGNAHRQIPIVHWVI------MSISPVGFVENGILLWFLCFRMRRNPF 66

Qy         62 SIYILNLVAANFLFLSGHIIFS-----PLPLINIRHPISKILSPVMTFPYFIGLSMLSAI 116
              ::|| :|  |:   |    | |         | :  :     ||    | |  || :|:||
Db         67 TVYITHLSIADISLLFCIFILSIDYALDYELSSGHYYTIVTLSVTFLFGYNTGLYLLTAI 126

Qy        117 STERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETS 176
              | |||||:|:|||| | ||:| |:::| |||||| | : :|:: |       ::|      :
Db        127 SVERCLSVLYPIWYRCHRPKYQSALVCALLWALSCLVTTMEYVMCIDREEESHS----RN 182

Qy        177 D------FITI-AWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCG 229
              |       || | ::|||  ::|  || :|:|:|   :      ::||: |::|:::||:
Db        183 DCRAVIIFIAILSFLVFTPLMLV-SSTILVVKIRKNTWASHSSKLYIVIMVTIIIFLIFA 241

Qy        230 LPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKL 289
              :|  : : |:       |   | ::| :|:  | :|||||| ||||||| :::: :::||:
Db        242 MPMRLLYLLYYEY---WST-FGNLHHISLLFSTINSSANPFIYFFVGSSKKKRFKESLKV 297

Qy        290 VLQRALQD 297
              || || :|
Db        298 VLTRAFKD 305


RESULT 4
S51001
transforming protein mas - mouse
N;Alternate names: mas proto-oncogene protein; probable G protein-coupled receptor mas
C;Species: Mus musculus (house mouse)
C;Date: 10-Apr-1996 #sequence_revision 19-Apr-1996 #text_change 09-Jul-2004
C;Accession: S51001; I48647; S29619
R;Metzger, R.; Bader, M.; Ludwig, T.; Berberich, C.; Bunnemann, B.; Ganten, D.
FEBS Lett. 357, 27-32, 1995
A;Title: Expression of the mouse and rat mas proto-oncogene in the brain and peripheral t
A;Reference number: S51001; MUID:95094925; PMID:8001672
A;Accession: S51001
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-324 <MET>
A;Cross-references: UNIPROT:P30554; UNIPARC:UPI000003B44B; EMBL:X67735
R;Metzger, R.; Bader, M.; Ludwig, T.; Berberich, C.; Bunnemann, B.; Ganten, D.
FEBS Lett. 357, 27-32, 1995
A;Title: Expression of the mouse and rat mas proto-oncogene in the brain and peripheral t
A;Reference number: I48647; MUID:95094925; PMID:8001672
A;Accession: I48647
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-87,'I',89-324 <RES>
A;Cross-references: UNIPARC:UPI0000029856; EMBL:X67735; NID:g53011; PIDN:CAA47964.1; PID:
C;Genetics:
A;Gene: mas
C;Superfamily: mas transforming protein
C;Keywords: G protein-coupled receptor; proto-oncogene; transmembrane protein

  Query Match            25.0%;  Score 422.5;  DB 2;  Length 324;
  Best Local Similarity  37.7%;  Pred. No. 1.7e-27;
  Matches  107;  Conservative   55;  Mismatches   99;  Indels   23;  Gaps    9;

Qy         37 ISLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAANFLFLSGHIIFS-----PLPLINIR 91
              || :    | ::|| |  |||||  ::|| :|  |:   |    | |         | :
Db         41 ISPLGFVENGILLWFLCFRMRRNPFTVYITHLSMADISLLFCIFILSTDYALDYELSSGH 100

Qy         92 HPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSL 151
              |      ||    | |  || :|:||| |||||:|:|||| ||:: |: :| || |||
Db        101 HYTIVTLSVTFLFGYNTGLYLLTAISVERCLSVLYPIWYTSHRPKHQSAFVCALLCALSC 160

Qy        152 LRSILEWMFCDFLFSGANSVWCETSD------FITI-AWLVFLCVVLCGSSLVLLVRILC 204
              | : :|:: |  : ||  |      ||       || | ::|||  ::|  || :|:|:|
Db        161 LVTTMEYVMC--IDSGEES--HSRSDCRAVIIFIAILSFLVFTPLMLVSSS-ILVVKIRK 215

Qy        205 GSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALN 264
              :     ::||: |::|:::||:  :|  : : |:       |   | ::| :|:  | :|
```

```
Db        216 NTWASHSSKLYIVIMVTIIIFLIFAMPMRVLYLLYYEY---WSA-FGNLHNISLLFSTIN 271

Qy        265 SSANPIIYFFVGSFRQRQNRQNLKLVLQRALQD--TPEVDEGGG 306
              ||||| ||||||| :::: |::||:|| || :|   |   || |
Db        272 SSANPFIYFFVGSSKKKRFRESLKVVLTRAFKDEMQPRRQEGNG 315


RESULT 5
A35639
G protein-coupled receptor RTA - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 09-Jul-2004
C;Accession: A35639
R;Ross, P.C.; Figler, R.A.; Corjay, M.H.; Barber, C.M.; Adam, N.; Harcus, D.R.; Lynch, K
Proc. Natl. Acad. Sci. U.S.A. 87, 3052-3056, 1990
A;Title: RTA, a candidate G protein-coupled receptor: cloning, sequencing, and tissue di
A;Reference number: A35639; MUID:90222168; PMID:2109324
A;Accession: A35639
A;Molecule type: mRNA
A;Residues: 1-343 <ROS>
A;Cross-references: UNIPROT:P23749; UNIPARC:UPI0000046F10; GB:M35297; NID:g206809; PIDN:
C;Superfamily: mas transforming protein
C;Keywords: G protein-coupled receptor; glycoprotein; membrane protein
F;4/Binding site: carbohydrate (Asn) (covalent) #status predicted

  Query Match             21.7%;  Score 367.5;  DB 2;  Length 343;
  Best Local Similarity   32.4%;  Pred. No. 5.9e-23;
  Matches   96;  Conservative   61;  Mismatches  110;  Indels   29;  Gaps   10;

Qy         36 IISLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAANFLFLSGHIIFSPLPLINIR---- 91
              :: |  | || :|||  |  ::|   ||| |:| :|: ::|   :   : |:|:
Db         53 LLCLCGLVGNGLVLWFFGFSIKRTPFSIYFLHLASADGIYLFSKAV---IALLNMGTFLG 109

Qy         92 ------HPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVL 145
                   :|:|:  : ||  | |:|:| ||| |||:|:::|:||  |||: ||: :| |
Db        110 SFPDYVRRVSRIVG-LCTF--FAGVSLLPAISIERCVSVIFPMWYWRRRPKRLSAGVCAL 166

Qy        146 LWALSLLRSILEWMFCDFLFSGANSVWCETSDFITIAWLVF--LCVVLCGSSLVLLVRIL 203
              || || | : :   || ||   |:   |   | |::  |:|   | ::    | |:: :
Db        167 LWLLSFLVTSIHNYFCMFLGHEASGTACLNMD-ISLGILLFFLFCPLMVLPCLALILHVE 225

Qy        204 CGSRKMPLT-RLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDW--KVLFCHVHLVSIFL 260
              | :|:   : :|   :|  | |||:  :  || | ||       |  ::       |:
Db        226 CRARRRQRSAKLNHVVLAIVSVFLVSSIYLGIDWFLF------WVFQIPAPFPEYVTDLC 279

Qy        261 SALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGGWLPQE-TLEL 315
                :|||| ||:||  |  : ::  : |::| ||||:|  |  :     |   |:|:
Db        280 ICINSSAKPIVYFLAGRDKSQRLWEPLRVVFQRALRDGAEPGDAASSTPNTVTMEM 335


RESULT 6
JQ1231
interleukin-8 receptor - rabbit
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 31-Mar-1992 #sequence_revision 31-Mar-1992 #text_change 09-Jul-2004
C;Accession: JQ1231; A46483
R;Beckmann, M.P.; Munger, W.E.; Kozlosky, C.; VandenBos, T.; Price, V.; Lyman, S.; Gerar
Biochem. Biophys. Res. Commun. 179, 784-789, 1991
A;Title: Molecular characterization of the interleukin-8 receptor.
A;Reference number: JQ1231; MUID:91378994; PMID:1898400
A;Accession: JQ1231
A;Molecule type: DNA
A;Residues: 1-355 <BEC>
A;Cross-references: UNIPROT:P21109; UNIPARC:UPI000012D4ED; GB:M74240; NID:g165438; PIDN:
R;Lee, J.; Kuang, W.J.; Rice, G.C.; Wood, W.I.
J. Immunol. 148, 1261-1264, 1992
A;Title: Characterization of complementary DNA clones encoding the rabbit IL-8 receptor.
A;Reference number: A46483; MUID:92148149; PMID:1737938
A;Accession: A46483
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-355 <LEE>
A;Cross-references: UNIPARC:UPI000012D4ED; GB:M82873; NID:g165440; PIDN:AAA31376.1; PID:
A;Experimental source: neutrophils
A;Note: sequence extracted from NCBI backbone (NCBIN:81526, NCBIP:81530)
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; transmembrane protein

  Query Match             14.0%;  Score 237;  DB 2;  Length 355;
  Best Local Similarity   27.6%;  Pred. No. 3.4e-12;
  Matches   93;  Conservative   60;  Mismatches  104;  Indels   80;  Gaps   18;

Qy         10 TKLTPINGREETPC--YNQTLS---FTGLTCIISLVALTGNA-VVLWLLGCRMRRNAVSI 63
              | : |:  :: :||    |||:      :  :: |::| ||: |:| :|  |  |:   :
Db         23 TGMPPVE-KDYSPCLVVTQTLNKYVVVVIYALVFLLSLLGNSLVMLVILYSRSNRSVTDV 81

Qy         64 YILNLVAANFLFLSGHIIFSPLPLIN------IRHPISKILSPVMTFPYFIGLSMLSAIS 117
              |:|||  |: ||     :  |:  ::          |: |::| |    :: |: :|: ||
Db         82 YLLNLAMADLLF----ALTMPIWAVSKEKGWIFGTPLCKVVSLVKEVNFYSGILLLACIS 137

Qy        118 TERCLSILWPIWYHCRR----PRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANS--V 171
               :| |:|:      |  |      :|:  :|:::|||: |:  ::|   :||  ||  |
Db        138 VDRYLAIV-----HATRTLTQKRHLVKFICLGIWALSLILSLPFFLFRQ-VFSPNNSSPV 191

Qy        172 WCETSDFITIAWLVFLCVV--LCGSSLVLLVRILC-GSRKMPLTRLYV--------TILL 220
              |     |  | : | ::    |  | ||| : | |     | : ::         |
Db        192 CYEDLGHNTAKWRMVLRILPHTFGFILPLLVMLFCYGFTLRTLFQAHMGQKHRAMRVIFA 251

Qy        221 TVLVFLLCGLPFGIQWALFSRIHLDWKVLFC----HVHLV---------------SIFL 260
              ||:||| ||: :              ||        |::                 :  |
Db        252 VVLIFLLCWLPYNL------------VLLADTLMRTHVIQETCQRRNDIDRALDATEIL 298

Qy        261 SALNSSANPIIYFFVGSFRQRQNRQN--LKLVLQRAL 295
              |:|  ||||| |:|     || :|  ||::  | |
Db        299 GFLHSCLNPIIYAFIG-----QNFRNGFLKMLAARGL 330


RESULT 7
A23669
interleukin-8 receptor, high affinity - rabbit
N;Alternate names: fMLP receptor
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 09-Jul-2004
C;Accession: A23669
R;Thomas, K.M.; Pyun, H.Y.; Navarro, J.
J. Biol. Chem. 265, 20061-20064, 1990
A;Title: Molecular cloning of the fMet-Leu-Phe receptor from neutrophils.
A;Reference number: A23669; MUID:91056034; PMID:1700779
A;Accession: A23669
A;Molecule type: mRNA
A;Residues: 1-354 <THO>
A;Cross-references: UNIPROT:P21109; UNIPARC:UPI0000156FB7; GB:M58021; GB:J05705; NID:g165
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; glycoprotein; membrane protein; neutrophil

  Query Match             14.0%;  Score 236.5;  DB 2;  Length 354;
  Best Local Similarity   29.4%;  Pred. No. 3.7e-12;
  Matches   96;  Conservative   54;  Mismatches  117;  Indels   59;  Gaps   17;

Qy         10 TKLTPINGREETPC--YNQTLS---FTGLTCIISLVALTGNA-VVLWLLGCRMRRNAVSI 63
              | : |:  :: :||    |||:      :  :: |::| ||: |:| :|  |  |:   :
Db         23 TGMPPVE-KDYSPCLVVTQTLNKYVVVVIYALVFLLSLLGNSLVMLVILYSRSNRSVTDV 81

Qy         64 YILNLVAANFLFLSGHIIFSPL--PLINIRHPISKILSPVMTFPYFIGLSMLSAISTERC 121
              |:|||  |   |   |      |     :: | |: |::| |     :: |: :|: || :|
Db         82 YLLNLAMAP-AFCPDHAYLGRLQGKRLDFRTPLCKVVSLVKEVNFYSGILLLACISVDRY 140

Qy        122 LSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANS--VWCETSDFI 179
              |:|:        : |:|   :|: :|||||: |:  ::|   :||  ||  |  |
Db        141 LAIVQST-RTLTQKRHLVKFICLGIWALSLILSLPFFLFRQ-VFSPNNSSPVCYEDLGHN 198

Qy        180 TIAWLVFLCVVL------CGSSLVLLVRILC-GSRKMPLTRLYV--------TILLTVLV 224
              |  |    |:||       |  | ||| : | |     | : ::         |   ||:
Db        199 TAKW----CMVLRILPHTFGFILPLLVMLFCYGFTLRTLFQAHMGQKHRAMRVIFAVVLI 254

Qy        225 FLLCGLPFG------------IQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPII 271
```

```
Db        255 FLLCWLPYNLVLLADTLMRTHVIQETCQRRNELDRALDATEI------LGFLHSCLNPII 308

Qy        272 YFFVGSFRQRQNRQN--LKLVLQRAL 295
Db        309 YAFIG-----QNFRNGFLKMLAARGL 329
```

RESULT 8
C42009
FMLP-related receptor 2 - human
N;Alternate names: FMLP-related receptor I; probable chemotactic receptor FPRH2
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004
C;Accession: C42009
R;Bao, L.; Gerard, N.P.; Eddy Jr., R.L.; Shows, T.B.; Gerard, C.
Genomics 13, 437-440, 1992
A;Title: Mapping of genes for the human C5a receptor (C5AR), human FMLP receptor (FPR),
A;Reference number: A42009; MUID:92307681; PMID:1612600
A;Accession: C42009
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-353 <BAO>
A;Cross-references: UNIPROT:P25089; UNIPARC:UPI0000050485; GB:M76673; NID:g182668; PID:g
C;Comment: This fMet-Leu-Phe receptor homolog, whose ligand is not yet known, appears nc
C;Genetics:
A;Gene: GDB:FPRL2
A;Cross-references: GDB:128855; OMIM:136539
A;Map position: 19q13.3-19q13.4
A;Introns: #status absent
C;Superfamily: vertebrate rhodopsin
C;Keywords: chemotaxis; G protein-coupled receptor; glycoprotein; transmembrane protein

  Query Match 13.5%; Score 228; DB 2; Length 353;
  Best Local Similarity 23.2%; Pred. No. 1.9e-11;
  Matches 79; Conservative 77; Mismatches 113; Indels 72; Gaps 15;

```
Qy         14 PINGREE--------TPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNAVSIYI 65
Db          8 PLNETEEVLPEPAGHTVLWIFSLLVHGVTFVFGVL---GNGLVIWVAGFRMTRTVNTICY 64

Qy         66 LNLVAANFLFLSGHIIFSPLPLINI----RHP----ISKILSPVMTFPYFIGLSMLSAIS 117
Db         65 LNLALADFSFSA----ILPFRMVSVAMREKWPFASFLCKLVHVMIDINLFVSVYLITIIA 120

Qy        118 TERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMF-----------CDFLF 165
Db        121 LDRCICVLHPAWAQNHRTMSLAKRVMTGLWIFTIVLTLPNFIFWTTISTTNGDTYCIFNF 180

Qy        166 SGANSVWCET-----SDFITIAWLVFLCVVLCGSSLVLLVRILC--------------G 205
Db        181 ----AFWGDTAVERLNVFITMAKVFLILHFIIGFTVPMSIITVCYGIIAAKIHRNHMIKS 236

Qy        206 SRKMPLTRLYVTILLTVLVFLLCGLPF---GIQWALFSR---IHLDWKVLFCHVHLVSIF 259
Db        237 SR--PL-RVFAAV---VASFFICWFPYELIGILMAVWLKEMLLNGKYKIILVLINPTS-S 289

Qy        260 LSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
Db        290 LAFFNSCLNPILYVFMGRNFQERLIRSLPTSLERALTEVPD 330
```

RESULT 9
D41795
somatostatin receptor 2 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004
C;Accession: D41795; I56236
R;Yamada, Y.; Post, S.R.; Wang, K.; Tager, H.S.; Bell, G.I.; Seino, S.
Proc. Natl. Acad. Sci. U.S.A. 89, 251-255, 1992
A;Title: Cloning and functional characterization of a family of human and mouse somatost
A;Reference number: A41795; MUID:92108031; PMID:1346068
A;Accession: D41795
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-369 <YAM>
A;Cross-references: UNIPROT:P30875; UNIPARC:UPI0000000A47; GB:M81832; NID:g201060; PIDN:
R;Elliott, D.E.; Metwali, A.; Blum, A.M.; Sandor, M.; Lynch, R.; Weinstock, J.V.
J. Immunol. 153, 1180-1186, 1994
A;Title: T lymphocytes isolated from the hepatic granulomas of schistosome-infected mice
A;Reference number: I56236; MUID:94300079; PMID:7913111
A;Accession: I56236
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 99-309 <RES>
A;Cross-references: UNIPARC:UPI00001778F0; GB:S71756; NID:g560631
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; hormone receptor; transmembrane protein

  Query Match 13.2%; Score 222.5; DB 2; Length 369;
  Best Local Similarity 28.0%; Pred. No. 5.5e-11;
  Matches 94; Conservative 58; Mismatches 129; Indels 55; Gaps 18;

```
Qy          8 LGTKLTPINGREET-PCYNQTLS--FTGLTCIISLVALTGNAVVLW-LLGCRMRRNAVSI 63
Db         21 LNGSLGPSNGSNQTEPYYDMTSNAVLTFIYFVVCVVGLCGNTLVIYVILRYAKMKTITNI 80

Qy         64 YILNLVAANFLFLSGHIIFSPLPLINIRHPISK-ILSPVMT---FPYFIGLSMLSAISTE 119
Db         81 YILNLAIADELFMLG-LPFLAMQVALVHWPFGKAICRVVMTVDGINQFTSIFCLTVMSID 139

Qy        120 RCLSILWPI----WYHCRRPRYLSSVMCVLLWALSLLRSILEWMF----------CD 162
Db        140 RYLAVVHPIKSAKW---RRPR-TAKMINVAVWCVSLL-VILPIMIYAGLRSNQWGRSSCT 194

Qy        163 FLFSGANSVWCETSDFITIAWLVFLCV---VLCGSSLVLLVR-----ILCGSRKMPLTRL 214
Db        195 INWPGESGAW--YTGFIIYAFILGFLVPLTIICLCYLFIIIKVKSSGIRVGSSKRKKSEK 252

Qy        215 YVT--ILLTVLVFLLCGLPF------GIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSS 266
Db        253 KVTRMVSIVVAVFIFCWLPFYIFNVSSVSVAISPTPAL--KGMFDFV----VILTYANSC 306

Qy        267 ANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVD 302
Db        307 ANPILYAFLSDNFKKSFQNVLCLVKVSGTEDGERSD 342
```

RESULT 10
A45291
somatostatin receptor, somatotropin release-inhibiting factor receptor, SRIF receptor -
C;Species: Rattus norvegicus (Norway rat)
C;Date: 25-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
C;Accession: A45291
R;Kluxen, F.W.; Bruns, C.; Lubbert, H.
Proc. Natl. Acad. Sci. U.S.A. 89, 4618-4622, 1992
A;Title: Expression cloning of a rat brain somatostatin receptor cDNA.
A;Reference number: A45291; MUID:92262491; PMID:1374909
A;Accession: A45291
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-369 <KLU>
A;Cross-references: UNIPROT:P30680; UNIPARC:UPI0000135FF7; GB:M93273; NID:g207026; PIDN:
A;Note: sequence extracted from NCBI backbone (NCBIN:102315, NCBIP:102316)
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; transmembrane protein

  Query Match 13.2%; Score 222.5; DB 2; Length 369;
  Best Local Similarity 28.0%; Pred. No. 5.5e-11;
  Matches 94; Conservative 58; Mismatches 129; Indels 55; Gaps 18;

```
Qy          8 LGTKLTPINGREET-PCYNQTLS--FTGLTCIISLVALTGNAVVLW-LLGCRMRRNAVSI 63
Db         21 LNGSLGPSNGSNQTEPYYDMTSNAVLTFIYFVVCVVGLCGNTLVIYVILRYAKMKTITNI 80

Qy         64 YILNLVAANFLFLSGHIIFSPLPLINIRHPISK-ILSPVMT---FPYFIGLSMLSAISTE 119
```

```
              |||||  |: ||: | : |  : :  :  |  | |   |||       |  :  |: :| :
Db          81 YILNLAIADELFMLG-LPFLAMQVALVHWPFGKAICRVVMTVDGINQFTSIFCLTVMSID 139

Qy         120 RCLSILWPI----WYHCRRPRYLSSVMCVLLWALSLLRSILEWMF-------------CD 162
               | |::: ||    |   ||||  : :: | :| :|||  ||  |              |
Db         140 RYLAVVHPIKSAKW---RRPR-TAKMINVAVWGVSLL-VILPIMIYAGLRSNQWGRSSCT 194

Qy         163 FLPFSGANSVWCETSDFITIAWLVFLCV---VLCGSSLVLLVR-----ILCGSRKMPLTRL 214
                 : | :  |   : ||  |:::   |   ::|   | ::::     |  || |   :
Db         195 INWPGESGAW--YTGFIIYAFILGFLVPLTIICLCYLFIIIKVKSSGIRVGSSKRKKSEK 252

Qy         215 YVT--ILLTVLVFLLCGLPF------GIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSS 266
                ||  : : | ||: | |||       :  |:     |  | :|  |    : |:  ||
Db         253 KVTRMVSIVVAVFIFCWLPFYIFNVSSVSVAISPTPAL--KGMFDFV----VILTYANSC 306

Qy         267 ANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVD 302
               ||||:| |:    ::  :  | ||    :|    |
Db         307 ANPILYAFLSDNFKKSFQNVLCLVKVSGAEDGERSD 342


RESULT 11
S29248
somatostatin receptor 2B - mouse
C;Species: Mus musculus (house mouse)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 09-Jul-2004
C;Accession: S29248
R;Vanetti, M.; Kouba, M.; Wang, X.; Vogt, G.; Hoellt, V.
FEBS Lett. 311, 290-294, 1992
A;Title: Cloning and expression of a novel mouse somatostatin receptor (SSTR2B).
A;Reference number: S29248; MUID:93012001; PMID:1397330
A;Accession: S29248
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-346 <VAN>
A;Cross-references: UNIPROT:P30875; UNIPARC:UPI0000044D82; EMBL:X68951; NID:g54197; PIDN
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; transmembrane protein

  Query Match             12.9%;  Score 217.5;  DB 2;  Length 346;
  Best Local Similarity   28.0%;  Pred. No. 1.3e-10;
  Matches   92;  Conservative   55;  Mismatches  119;  Indels   63;  Gaps   19;

Qy           8 LGTKLTPINGREET-PCYNQTLS--FTGLTCIISLVALTGNAVVLW-LLGCRMRRNAVSI 63
               |   | | ||  :| | |: | :   | :  :: :| | || :|:: :|     :   :|
Db          21 LNGSLGPSNGSNQTEPYYDMTSNAVLTFIYFVVCVVGLCGNTLVIYVILRYAKMKTITNI 80

Qy          64 YILNLVAANFLFLSGHIIFSPLPLINIRHPISK-ILSPVMT---FPYFIGLSMLSAISTE 119
               |||||  |: ||: | : |  : :  :  |  | |   |||       |  :  |: :| :
Db          81 YILNLAIADELFMLG-LPFLAMQVALVHWPFGKAICRVVMTVDGINQFTSIFCLTVMSID 139

Qy         120 RCLSILWPI----WYHCRRPRYLSSVMCVLLWALSLLRSILEWMF-------------CD 162
               | |::: ||    |   ||||  : :: | :| :|||  ||  |              |
Db         140 RYLAVVHPIKSAKW---RRPR-TAKMINVAVWCVSLL-VILPIMLYAGLRSNQWGRSSCT 194

Qy         163 FLPFSGANSVWCETSDFITIAWLVFLCV---VLCGSSLVLLVR-----ILCGSRKMPLTRL 214
                 : | :  |   : ||  |:::   |   ::|   | ::::     |  || |   :
Db         195 INWPGESGAW--YTGFIIYAFILGFLVPLTIICLCYLFIIIKVKSSGIRVGSSKRKKSEK 252

Qy         215 YVT--ILLTVLVFLLCGLPF------GIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSS 266
                ||  : : | ||: | |||       :  |:     |  | :|  |    : |:  |:
Db         253 KVTRMVSIVVAVFIFCWLPFYIFNVSSVSVAISPTPAL--KGMFDFV----VILTYANTC 306

Qy         267 ANPIIYFFVGSFRQRQNRQNLKLVLQRAL 295
               ||||:| |:        | |   |  |
Db         307 ANPILYAFLS--------DNFKKSFQNVL 327


RESULT 12
A53752
interleukin-8 receptor (clone 5B1a) - rabbit
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Accession: A53752
R;Prado, G.N.; Thomas, K.M.; Suzuki, H.; LaRosa, G.J.; Wilkinson, N.; Folco, E.; Navarro,
J. Biol. Chem. 269, 12391-12394, 1994
A;Title: Molecular characterization of a novel rabbit interleukin-8 receptor isotype.
A;Reference number: A53752; MUID:94230294; PMID:8175642
A;Accession: A53752
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-358 <PRA>
A;Cross-references: UNIPROT:P35344; UNIPARC:UPI000012D4F4; GB:L24445; NID:g437661; PIDN:
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; transmembrane protein

  Query Match             12.8%;  Score 216.5;  DB 2;  Length 358;
  Best Local Similarity   26.1%;  Pred. No. 1.7e-10;
  Matches   81;  Conservative   53;  Mismatches  105;  Indels   71;  Gaps   13;

Qy          19 EETPCYNQTLSFTGLTCIIS-----LVALTGNA-VVLWLLGCRMRRNAVSIYILNLVAAN 72
               :  || :::|       :|:     |::| ||: |:| :|  |   :   :|:|||  |:
Db          33 DSAPCRSESLETNSYVVLITYILVFLLSLLGNSLVMLVILYSRSTCSVTDVYLLNLAIAD 92

Qy          73 FLFLSGHIIFSPLPL--------INIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSI 124
                ||       : ||:             |: |::| |    :: |: :|: || :| |:|
Db          93 LLFA------TTLPIWAASKVHGWTFGTPLCKVVSLVKEVNFYSGILLLACISVDRYLAI 146

Qy         125 LWPIWYHCRR----PRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWC-ETSDFI 179
               :     | |     |:|   :|: :| :||: |:   :| : :|   :|  | |
Db         147 V-----HATRTMIQKRHLVKFICLSMWGVSLILSLPILLFRNAIFPPNSSPVCYEDMGNS 201

Qy         180 TIAWLVFLCVV--LCGSSLVLLVRILC-------------GSRKMPLTRLYVTILLTVLV 224
               |  | : | ::    |  | ||| : |             | :     |    |   ||:
Db         202 TAKWRMVLRILPQTFGFILPLLVMLFCYVFTLRTLFQAHMGQKH----RAMRVIFAVVLI 257

Qy         225 FLLCGLPFGIQWALFSRIHLDWKVLFCHVHL-------------VSIFLSALNSSANPI 270
               |||| ||: :       : |   ::  ||                 :  |  |:|  |||
Db         258 FLLCWLPYNL-------VLLTDTLMRTHVIQETCERRNDIDRALDATEILGFLHSCLNPI 310

Qy         271 IYFFVG-SFR 279
               || |:|  ||
Db         311 IYAFIGQKFR 320


RESULT 13
A53611
interleukin-8 receptor type B - human
C;Species: Homo sapiens (man)
C;Date: 07-Oct-1994 #sequence_revision 12-Apr-1996 #text_change 09-Jul-2004
C;Accession: I37898; I38712; A53611; A39446
R;Ahuja, S.K.; Shetty, A.; Tiffany, H.L.; Murphy, P.M.
J. Biol. Chem. 269, 26381-26389, 1994
A;Title: Comparison of the genomic organization and promoter function for human interleu
A;Reference number: I37898; MUID:95014476; PMID:7929358
A;Accession: I37898
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-360 <RES>
A;Cross-references: UNIPROT:P25025; UNIPARC:UPI000004358A; EMBL:U11869; NID:g511801; PIDN
A;Accession: I38712
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-15 <RE2>
A;Cross-references: UNIPARC:UPI000000053D; EMBL:U11872; NID:g511808; PIDN:AAA64380.1; PID
14; PID:g511815; EMBL:U11876; NID:g511816; PID:g511817; EMBL:U11877; NID:g511818; PID:g5
R;Sprenger, H.; Lloyd, A.R.; Lautens, L.L.; Bonner, T.I.; Kelvin, D.J.
J. Biol. Chem. 269, 11065-11072, 1994
A;Title: Structure, genomic organization, and expression of the human interleukin-8 recep
A;Reference number: A53611; MUID:94209273; PMID:7512557
A;Accession: A53611
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 6-360 <SPR>
A;Cross-references: UNIPARC:UPI00000746D6; GB:M99412; GB:L19593
R;Murphy, P.M.; Tiffany, H.L.
Science 253, 1280-1283, 1991
```

```
A;Title: Cloning of complementary DNA encoding a functional human interleukin-8 receptor
A;Reference number: A39446; MUID:91368200; PMID:1891716
A;Accession: A39446
A;Status: preliminary; nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 6-360 <MUR>
A;Cross-references: UNIPARC:UPI00000746D6; GB:M73969
C;Comment: This receptor, unlike IL8RA, binds several peptides besides interleukin-8, in
C;Genetics:
A;Gene: GDB:IL8RB; IL8RA
A;Cross-references: GDB:127868; OMIM:146928
A;Map position: 2q35-2q35
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; transmembrane protein

  Query Match             12.7%;  Score 215.5;  DB 2;  Length 360;
  Best Local Similarity   26.3%;  Pred. No. 2e-10;
  Matches   81;  Conservative   55;  Mismatches  105;  Indels   67;  Gaps   13;

Qy         19 EETPCYNQTLSFTG-----LTCIISLVALTGNA-VVLWLLGCRMRRNAVSIYILNLVAAN 72
              :  ||  ::|         :  :: |::| ||: |:| :|  |: |:   :|:|||  |:
Db         35 DAAPCEPESLEINKYFVVIIYALVFLLSLLGNSLVMLVILYSRVGRSVTDVYLLNLALAD 94

Qy         73 FLF-----------LSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTERC 121
               ||           ::| | :  | |          |::| :    :: |: :|: || :|
Db         95 LLFALTLPIWAASKVNGWIFGTFL---------CKVVSLLKEVNFYSGILLLACISVDRY 145

Qy        122 LSILWPIWYHCRR----PRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWC-ETS 176
              |:|:     |  |    |||   :|: :| |||| ::   :|   ::|   |  | |
Db        146 LAIV-----HATRTLTQKRYLVKFICLSIWGLSLLLALPVLLFRRTVYSSNVSPACYEDM 200

Qy        177 DFITIAWLVFLCVV--LCGSSLVLLVRILC-GSRKMPLTRLYV--------TILLTVLVF 225
                 |  | : | ::    |  : ||: : | |     | : ::         |   ||:|
Db        201 GNNTANWRMLLRILPQSFGFIVPLLIMLFCYGFTLRTLFKAHMGQKHRAMRVIFAVVLIF 260

Qy        226 LLCGLPFG------------IQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIY 272
              ||| ||:              ||     | |:|  :    :      |  |:|  ||:||
Db        261 LLCWLPYNLVLLADTLMRTQVIQETCERRNHIDRALDATEI------LGILHSCLNPLIY 314

Qy        273 FFVG-SFR 279
                |:|  ||
Db        315 AFIGQKFR 322


RESULT 14
I57940
somatostatin receptor 5 - rat
N;Alternate names: somatotropin release-inhibiting factor subtype 28 receptor
C;Species: Rattus norvegicus (Norway rat)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 09-Jul-2004
C;Accession: I57940; I57949; S39244
R;O'Carroll, A.M.; Lolait, S.J.; Konig, M.; Mahan, L.C.
Mol. Pharmacol. 42, 939-946, 1992
A;Title: Molecular cloning and expression of a pituitary somatostatin receptor with pref
A;Reference number: I57940; MUID:93125499; PMID:1362243
A;Accession: I57940
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-363 <OCA1>
A;Cross-references: UNIPROT:P30938; UNIPARC:UPI0000135FFB; GB:L04535; NID:g409238; PIDN:
R;O'Carroll, A.M.; Lolait, S.J.; Konig, M.; Mahan, L.C.
Mol. Pharmacol. 44, 1278, 1993
A;Title: Molecular cloning and expression of a pituitary somatostatin receptor with pref
A;Reference number: I57949; MUID:94088493; PMID:8264565
A;Accession: I57949
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 341-363 <OCA2>
A;Cross-references: UNIPARC:UPI00000004EB; GB:S67370; NID:g455947; PIDN:AAB29371.1; PID:
A;Experimental source: pituitary
R;Penetta, R.; Greenwood, M.; Patel, Y.C.
submitted to the EMBL Data Library, August 1993
A;Description: Correction of the nucleotide and amino acid sequence of the rat somatosta

A;Reference number: S39244
A;Accession: S39244
A;Molecule type: mRNA
A;Residues: 309-363 <PEN>
A;Cross-references: UNIPARC:UPI00001707D8; EMBL:X74828; NID:g433911; PIDN:CAA52825.1; PII
C;Genetics:
A;Gene: SSTR5
C;Superfamily: vertebrate rhodopsin

  Query Match             12.7%;  Score 215.5;  DB 2;  Length 363;
  Best Local Similarity   24.5%;  Pred. No. 2.1e-10;
  Matches   89;  Conservative   66;  Mismatches  126;  Indels   83;  Gaps   17;

Qy         21 TPCYNQTLSFTG----------------------LTCIISLVALTGNAVVLW-LLGCRMR 57
              || :| : : :|                      |  ::  | |:|| :|:: :|
Db          9 TPSWNASAASSGNHNWSLVGSASPMGARAVLVPVLYLLVCTVGLSGNTLVIYVVLRHAKM 68

Qy         58 RNAVSIYILNLVAANFLFLSGHIIFSPLPLINIRHPI-------SKILSPVMTFP---YF 107
              :   ::|||||  |: ||: |      || :  :: :       | :   |||      |
Db         69 KTVTNVYILNLAVADVLFMLG------LPFLATQNAVVSYWPFGSFLCRLVMTLDGINQF 122

Qy        108 IGLSMLSAISTERCLSILWPI----WYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDF 163
              :  | :| :| |::: |:    |  |||| :: :    :|  ||| |:   :| |
Db        123 TSIFCLMVMSVDRYLAVVHPLRSARW---RRPR-VAKMASAAVWVFSLLMSLPLLVFADV 178

Qy        164 L--FSGANSVWCETSDFITIAWLVFLCV--------VLCGSSLVLLVRILCGSRKM---- 209
                :   |  | |       |:: :  |       |:|   |:::|::       ::
Db        179 QEGWGTCNLSWPEPVGLWGAAFITYTSVLGFFGPLLVICLCYLLIVVKVKAAGMRVGSSR 238

Qy        210 ------PLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSAL 263
                   :||: | :   ||||: | ||| |   :     |  :     ::   : ||
Db        239 RRRSEPKVTRMVVVV---VLVFVGCWLPFFIVNIVNLAFTLPEEPTSAGLYFFVVVLSYA 295

Qy        264 NSSANPIIYFFVG-SFRQRQNRQNLKLVLQR--ALQDT----PEVDEGG---GWLPQETL 313
              || |||::| |:  :|||   :    | |:|   ::|     |  |: |     ||  :
Db        296 NSCANPLLYGFLSDNFRQSFRK---VLCLRRGYGMEDADAIEPRPDKSGRPQATLPTRSC 352

Qy        314 ELSG 317
              | :|
Db        353 EANG 356


RESULT 15
B42009
FMLP-related receptor 1 - human
N;Alternate names: FMLP receptor homolog FPR2; formyl peptide receptor like-1; probable c
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 14-Jul-1995 #text_change 09-Jul-2004
C;Accession: B42009; JC1258; JQ1521; A42492; I54751; S21581
R;Bao, L.; Gerard, N.P.; Eddy Jr., R.L.; Shows, T.B.; Gerard, C.
Genomics 13, 437-440, 1992
A;Title: Mapping of genes for the human C5a receptor (C5AR), human FMLP receptor (FPR), a
A;Reference number: A42009; MUID:92307681; PMID:1612600
A;Accession: B42009
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-263,'A',265-338,'C',340-351 <BAO>
A;Cross-references: UNIPROT:P25090; UNIPARC:UPI00001778D8; GB:M76672
A;Note: authors translated the codons GTG for residue 15 as Glu, TCT for residue 19 as Th
R;Perez, H.D.; Holmes, R.; Kelly, E.; McClary, J.; Andrews, W.H.
Gene 118, 303-304, 1992
A;Title: Cloning of a cDNA encoding a receptor related to the formyl peptide receptor of
A;Reference number: JC1258; MUID:92380523; PMID:1511907
A;Accession: JC1258
A;Status: nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 1-351 <PER>
A;Cross-references: UNIPARC:UPI00000012D0; EMBL:X63819; NID:g31460; PID:g31461
A;Experimental source: bone marrow mRNA
R;Ye, R.D.; Cavanagh, S.L.; Quehenberger, O.; Prossnitz, E.R.; Cochrane, C.G.
Biochem. Biophys. Res. Commun. 184, 582-589, 1992
A;Title: Isolation of a cDNA that encodes a novel granulocyte N-formyl peptide receptor.
A;Reference number: JQ1521; MUID:92246937; PMID:1374236
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A;Accession: JQ1521
A;Molecule type: mRNA
A;Residues: 1-351 <YE2>
A;Cross-references: UNIPARC:UPI00000012D0; GB:M88107; NID:g189862; PID:g189863
A;Experimental source: granulocytes
A;Note: formyl peptide-stimulated calcium mobilization comparable to that of the formyl
R;Murphy, P.M.; Ozcelik, T.; Kenney, R.T.; Tiffany, H.L.; McDermott, D.; Francke, U.
J. Biol. Chem. 267, 7637-7643, 1992
A;Title: A structural homologue of the N-formyl peptide receptor. Characterization and c
A;Reference number: A42492; MUID:92218423; PMID:1373134
A;Accession: A42492
A;Molecule type: mRNA
A;Residues: 1-351 <MUR>
A;Cross-references: UNIPARC:UPI00000012D0; GB:M84562; NID:g182741; PIDN:AAA52473.1; PID:
A;Note: sequence extracted from NCBI backbone (NCBIN:94159, NCBIP:94160)
R;Nomura, H.; Nielsen, B.W.; Matsushima, K.
Int. Immunol. 5, 1239-1249, 1993
A;Title: Molecular cloning of cDNAs encoding a LD78 receptor and putative leukocyte chem
A;Reference number: I54751; MUID:94092629; PMID:7505609
A;Accession: I54751
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-351 <RES>
A;Cross-references: UNIPARC:UPI00000012D0; GB:D10922; NID:g219864; PIDN:BAA01720.1; PID:
C;Comment: This G-protein coupled receptor, homologous to the N-formyl peptide receptor
differentiated myeloid cells and is probably a chemotactic receptor for some other ligan
C;Genetics:
A;Gene: GDB:FPRL1
A;Cross-references: GDB:127554; OMIM:136538
A;Map position: 19q13.3-19q13.4
A;Introns: #status absent
C;Superfamily: vertebrate rhodopsin
C;Keywords: chemotaxis; G protein-coupled receptor; glycoprotein; transmembrane protein
F;27-53/Domain: transmembrane #status predicted <TM1>
F;59-83/Domain: transmembrane #status predicted <TM2>
F;100-121/Domain: transmembrane #status predicted <TM3>
F;145-169/Domain: transmembrane #status predicted <TM4>
F;206-226/Domain: transmembrane #status predicted <TM5>
F;242-266/Domain: transmembrane #status predicted <TM6>
F;282-307/Domain: transmembrane #status predicted <TM7>
F;4/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;98-176/Disulfide bonds: #status predicted

Query Match 12.7%; Score 214; DB 2; Length 351;
Best Local Similarity 25.6%; Pred. No. 2.7e-10;
Matches 88; Conservative 59; Mismatches 115; Indels 82; Gaps 18;

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Qy         13 TPINGREETPCYNQTLSFTGLTCIISLVAL--------TGNAVVLWLLGCRMRRNAVSIY 64
              ||:|  ||     ::  :| |  |: || |          || :|:|: | || |   :|
Db          7 TPLNEYEEVS--YESAGYTVLR-ILPLVVLGVTFVLGVLGNGLVIWVAGFRMTRTVTTIC 63

Qy         65 ILNLVAANFLFLSGHIIFSPLPLINI------RHP----ISKILSPVMTFPYFIGLSMLS 114
              |||  |:| |       : || : :      : |    : |::  |:     |  : ::
Db         64 YLNLALADFSFT------ATLPFLIVSMAMGEKWPFGWFLCKLIHIVVDINLFGSVFLIG 117

Qy        115 AISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMF------------CD 162
               |: :||: :| |:|    |   |:  : |  | |:|: ::  ::|            |
Db        118 FIALDRCICVLHPVWAQNHRTVSLAMKVIVGPWILALVLTLPVFLFLTTVTIPNGDTYCT 177

Qy        163 FLFSGANSVWCETSD---FITIAWLVFLCVV--LCGSSLVLLVRILC------------- 204
              | |:     |  | :   : |  |    ::  : | || : :  :|
Db        178 FNFAS----WGGTPEERLKVAITMLTARGIIRFVIGFSLPMSIVAICYGLIAAKIHKKGM 233

Qy        205 --GSRKMPLTRLYVTILLTVLV--FLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIF- 259
                ||  ||       :|| :|  | :|  || :  ||   : |   : :    :: |
Db        234 IKSSR--PLR------VLTAVVASFFICWFPFQLV-ALLGTVWLKEMLFYGKYKIIDILV 284

Qy        260 -----LSALNSSANPIIYFFVG-SFRQRQNRQNLKLVLQRALQD 297
                   |:  ||  ||::| |||  ||:|    :|   |:||| :
Db        285 NPTSSLAFFNSCLNPMLYVFVGQDFRERL-IHSLPTSLERALSE 327
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Search completed: February 3, 2006, 20:32:10

Job time : 44 secs

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Protein Sequence Searches - February 2005

All of the sequence databases on ABSS have recently been updated.

- Please note that the curators of the UniProt database have purged some temporary accession numbers from the most recent version of UniProt. These sequences have been assigned new permanent accession numbers. The new UniProt record may not contain the previous temporary accession number.

- If you encounter an accession number from an older search run against UniProt (results file extension **.rup)** that can no longer be found in the database, the permanent record with the new accession number can be found by searching the old accession number in the UniProt Protein Archive database (UniPARC) at:

  http://www.pir.uniprot.org/database/archive.shtml

If you have any questions regarding this information or your results, please contact any STIC searcher.

When submitting sequence search results for scanning into IFW, please include a copy of this attachment to assist any future Examiners or members of the public who may encounter UniProt temporary accession numbers.

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GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 3, 2006, 20:23:48 ; Search time 251 Seconds
(without alignments)
905.100 Million cell updates/sec

Title: US-10-747-702-3
Perfect score: 1691
Sequence: 1 MDPTIPVLGTKLTPINGREE.....EGGGWLPQETLELSGSKLEQ 322

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_05.80:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1642	97.1	322	1	MRGX3_HUMAN	Q961b0 homo sapien
2	1573	93.0	322	1	SNSR2_HUMAN	Q8tde0 homo sapien
3	1401	82.9	322	1	SNSR3_HUMAN	Q8tdd9 homo sapien
4	1373	81.2	322	1	MRGX1_HUMAN	Q961b2 homo sapien
5	1370	81.0	322	1	SNSR5_HUMAN	Q8tdd7 homo sapien
6	1370	81.0	322	2	Q4V9L2_HUMAN	Q4v9l2 homo sapien
7	1366	80.8	322	1	MRGX4_HUMAN	Q961a9 homo sapien
8	1334	78.9	322	2	Q5U9E0_MACFA	Q5u9e0 macaca fasc
9	1225	72.4	322	2	Q5U9D6_MACFA	Q5u9d6 macaca fasc
10	998.5	59.0	330	2	Q4QXU4_TRAFR	Q4qxu4 trachypithe
11	998.5	59.0	330	2	Q4QXU2_PYGBI	Q4qxu2 pygathrix b
12	980.5	58.0	330	1	MRGX2_MACFA	Q5u9d9 macaca fasc
13	980	58.0	329	2	Q4QXU5_MACMU	Q4qxu5 macaca mula
14	978.5	57.9	330	1	MRGX2_HUMAN	Q961b1 homo sapien
15	978.5	57.9	330	2	Q4QXW4_HUMAN	Q4qxw4 homo sapien
16	973.5	57.6	330	2	Q4QXX2_HUMAN	Q4qxx2 homo sapien
17	971.5	57.5	330	2	Q4QXX4_HUMAN	Q4qxx4 homo sapien
18	971.5	57.5	330	2	Q4QXW7_HUMAN	Q4qxw7 homo sapien
19	968.5	57.3	330	2	Q4QXX7_HUMAN	Q4qxx7 homo sapien
20	966.5	57.2	330	2	Q4QXX6_HUMAN	Q4qxx6 homo sapien
21	966.5	57.2	330	2	Q4QXX3_HUMAN	Q4qxx3 homo sapien
22	964.5	57.0	330	2	Q4QXX0_HUMAN	Q4qxx0 homo sapien
23	955.5	56.5	330	2	Q4QXU3_PONPY	Q4qxu3 pongo pygma
24	945	55.9	329	2	Q4QXU6_9PRIM	Q4qxu6 bunopithecu
25	940	55.6	329	2	Q4QXX9_PANTR	Q4qxx9 pan troglod
26	929	54.9	329	2	Q4QXU0_9PRIM	Q4qxu0 gorilla gor
27	815.5	48.2	323	2	Q7TN42_RAT	Q7tn42 rattus norv
28	812.5	48.0	323	1	SNSR1_RAT	Q8r4g1 rattus norv
29	786	46.5	322	2	Q8CIP3_MOUSE	Q8cip3 mus musculu
30	779	46.1	304	1	MRGRA_RAT	Q7tn49 rattus norv
31	774	45.8	331	2	Q91YB7_RAT	Q91yb7 rattus norv
32	773	45.7	331	2	Q5FVU1_RAT	Q5fvu1 rattus norv
33	765	45.2	304	1	MRGA1_MOUSE	Q91ww5 mus musculu
34	749	44.3	338	2	Q8CDY4_MOUSE	Q8cdy4 mus musculu
35	749	44.3	338	2	Q91ZC2_MOUSE	Q91zc2 mus musculu
36	744	44.0	294	2	Q7TN48_RAT	Q7tn48 rattus norv
37	730	43.2	302	1	MRGA3_MOUSE	Q91ww3 mus musculu
38	729.5	43.1	301	1	MRGA6_MOUSE	Q91zc6 mus musculu
39	721.5	42.7	305	1	MRGA7_MOUSE	Q91zc5 mus musculu
40	707	41.8	321	2	Q91ZC0_MOUSE	Q91zc0 mus musculu
41	704	41.6	338	2	Q91ZC3_MOUSE	Q91zc3 mus musculu
42	685.5	40.5	313	1	MRGA4_MOUSE	Q91ww2 mus musculu
43	680	40.2	304	1	MRGA5_MOUSE	Q91zc7 mus musculu
44	677.5	40.1	323	2	Q7TN45_RAT	Q7tn45 rattus norv
45	675.5	39.9	305	1	MRGA2_MOUSE	Q91ww4 mus musculu

ALIGNMENTS

RESULT 1
MRGX3_HUMAN
ID MRGX3_HUMAN STANDARD; PRT; 322 AA.
AC Q96LB0; Q8TDE1;
DT 25-OCT-2004 (Rel. 45, Created)
DT 25-OCT-2004 (Rel. 45, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Mas-related G-protein coupled receptor member X3 (Sensory neuron-
DE specific G-protein coupled receptor 1).
GN Name=MRGPRX3; Synonyms=MRGX3, SNSR1;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=21435808; PubMed=11551509; DOI=10.1016/S0092-8674(01)00483-4;
RA Dong X., Han S.-K., Zylka M.J., Simon M.I., Anderson D.J.;
RT "A diverse family of GPCRs expressed in specific subsets of
RT nociceptive sensory neurons.";
RL Cell 106:619-632(2001).
RN [2]
RP NUCLEOTIDE SEQUENCE, VARIANT ASN-169, AND TISSUE SPECIFICITY.
RX MEDLINE=21853733; PubMed=11850634; DOI=10.1038/nn815;
RA Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D., Roy M.-O.,
RA Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., Labarre M.,
RA Gosselin M., Fortin Y., Banville D., Shen S., Stroem P., Payza K.,
RA Dray A., Walker P., Ahmad S.;
RT "Proenkephalin A gene products activate a new family of sensory
RT neuron-specific GPCRs.";
RL Nat. Neurosci. 5:201-209(2002).
RN [3]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC TISSUE=Testis;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human

```
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC   -!- FUNCTION: Orphan receptor. Probably involved in the function of
CC       nociceptive neurons. May regulate nociceptor function and/or
CC       development, including the sensation or modulation of pain.
CC       Potently activated by enkephalins (By similarity).
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC   -!- TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal
CC       root and trigeminal sensory neurons.
CC   -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
CC       Mas subfamily.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; AY042215; AAK91806.1; -; Genomic_DNA.
DR   EMBL; AF474987; AAL86878.2; -; Genomic_DNA.
DR   EMBL; BC067292; AAH67292.1; -; mRNA.
DR   Ensembl; ENSG00000179826; Homo sapiens.
DR   HGNC; HGNC:17980; MRGPRX3.
DR   MIM; 607229; -.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Polymorphism; Receptor; Transducer;
KW   Transmembrane.
FT   TOPO_DOM      1     31       Extracellular (Potential).
FT   TRANSMEM     32     52       1 (Potential).
FT   TOPO_DOM     53     60       Cytoplasmic (Potential).
FT   TRANSMEM     61     81       2 (Potential).
FT   TOPO_DOM     82     96       Extracellular (Potential).
FT   TRANSMEM     97    117       3 (Potential).
FT   TOPO_DOM    118    140       Cytoplasmic (Potential).
FT   TRANSMEM    141    161       4 (Potential).
FT   TOPO_DOM    162    177       Extracellular (Potential).
FT   TRANSMEM    178    198       5 (Potential).
FT   TOPO_DOM    199    213       Cytoplasmic (Potential).
FT   TRANSMEM    214    234       6 (Potential).
FT   TOPO_DOM    235    254       Extracellular (Potential).
FT   TRANSMEM    255    275       7 (Potential).
FT   TOPO_DOM    276    322       Cytoplasmic (Potential).
FT   VARIANT     169    169       D -> N (in dbSNP:4274188).
FT                                /FTId=VAR_019434.
FT   CONFLICT      3      3       S -> P (in Ref. 2).
FT   CONFLICT     82     82       C -> R (in Ref. 3).
FT   CONFLICT    307    307       W -> Q (in Ref. 3).
FT   CONFLICT    319    319       R -> K (in Ref. 2).
SQ   SEQUENCE   322 AA;  36484 MW;  253B1BEF0CB4EB74 CRC64;

  Query Match             97.1%;  Score 1642;  DB 1;  Length 322;
  Best Local Similarity   97.2%;  Pred. No. 1.1e-109;
  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:|||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:|||||||| ||| ||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||:||||||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 2
SNSR2_HUMAN
ID   SNSR2_HUMAN    STANDARD;      PRT;   322 AA.
AC   Q8TDE0;
DT   25-OCT-2004 (Rel. 45, Created)
DT   25-OCT-2004 (Rel. 45, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   Sensory neuron-specific G-protein coupled receptor 2.
GN   Name=SNSR2;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE, AND TISSUE SPECIFICITY.
RX   MEDLINE=21853733; PubMed=11850634; DOI=10.1038/nn815;
RA   Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D., Roy M.-O.,
RA   Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., Labarre M.,
RA   Gosselin M., Fortin Y., Banville D., Shen S., Stroem P., Payza K.,
RA   Dray A., Walker P., Ahmad S.;
RT   "Proenkephalin A gene products activate a new family of sensory
RT   neuron-specific GPCRs.";
RL   Nat. Neurosci. 5:201-209(2002).
CC   -!- FUNCTION: Orphan receptor. Probably involved in the function of
CC       nociceptive neurons. May regulate nociceptor function and/or
CC       development, including the sensation or modulation of pain.
CC       Potently activated by enkephalins (By similarity).
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC   -!- TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal
CC       root and trigeminal sensory neurons.
CC   -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
CC       Mas subfamily.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; AF474988; AAL86879.2; -; Genomic_DNA.
DR   Ensembl; ENSG00000179826; Homo sapiens.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Glycoprotein; Receptor; Transducer;
KW   Transmembrane.
FT   TOPO_DOM      1     32       Extracellular (Potential).
FT   TRANSMEM     33     53       1 (Potential).
FT   TOPO_DOM     54     60       Cytoplasmic (Potential).
FT   TRANSMEM     61     81       2 (Potential).
FT   TOPO_DOM     82     96       Extracellular (Potential).
FT   TRANSMEM     97    117       3 (Potential).
FT   TOPO_DOM    118    140       Cytoplasmic (Potential).
FT   TRANSMEM    141    161       4 (Potential).
FT   TOPO_DOM    162    177       Extracellular (Potential).
FT   TRANSMEM    178    198       5 (Potential).
FT   TOPO_DOM    199    213       Cytoplasmic (Potential).
FT   TRANSMEM    214    234       6 (Potential).
FT   TOPO_DOM    235    254       Extracellular (Potential).
FT   TRANSMEM    255    275       7 (Potential).
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FT   TOPO_DOM    276    322       Cytoplasmic (Potential).
FT   CARBOHYD     89     89       N-linked (GlcNAc. . .) (Potential).
SQ   SEQUENCE   322 AA;  36595 MW;  D8C24308E3B4611B CRC64;

  Query Match             93.0%;  Score 1573;  DB 1;  Length 322;
  Best Local Similarity   93.8%;  Pred. No. 9.3e-105;
  Matches  302;  Conservative    9;  Mismatches   11;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              ||||:|||||:|||||||||||||| ||||||||||:||||||||||||||||||||||
Db          1 MDPTVPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:|||||||| ||| |||| ||||||||||||||||||||:||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINISHPISKILSPVMTFPYFIGLSMLNAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              |||||||||||||||||||||||||||| ||||||||||||||||:|| ||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWAPSLLRSILEWMFCDFLFSGADSVRCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||| ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLRVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              |||||||||||||||||||||||||||||||:||||| |||: ||||||| ||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFMGSFRQLQNRKTLKLVLQRDLQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              ||||| |||||||||||:|||
Db        301 VDEGGGWWLPQETLELSGSRLEQ 322


RESULT 3
SNSR3_HUMAN
ID   SNSR3_HUMAN    STANDARD;      PRT;   322 AA.
AC   Q8TDD9;
DT   25-OCT-2004 (Rel. 45, Created)
DT   25-OCT-2004 (Rel. 45, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   Sensory neuron-specific G-protein coupled receptor 3.
GN   Name=SNSR3;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE, AND TISSUE SPECIFICITY.
RX   MEDLINE=21853733; PubMed=11850634; DOI=10.1038/nn815;
RA   Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D., Roy M.-O.,
RA   Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., Labarre M.,
RA   Gosselin M., Fortin Y., Banville D., Shen S., Stroem P., Payza K.,
RA   Dray A., Walker P., Ahmad S.;
RT   "Proenkephalin A gene products activate a new family of sensory
RT   neuron-specific GPCRs.";
RL   Nat. Neurosci. 5:201-209(2002).
CC   -!- FUNCTION: Orphan receptor. Probably involved in the function of
CC       nociceptive neurons. May regulate nociceptor function and/or
CC       development, including the sensation or modulation of pain.
CC       Potently activated by enkephalins including BAM22 (bovine adrenal
CC       medulla peptide 22) and BAM (8-22). BAM22 is the most potent
CC       compound and evoked a large and dose-dependent release of
CC       intracellular calcium in stably transfected cells. G(alpha)q
CC       proteins are involved in the calcium-signaling pathway.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC   -!- TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal
CC       root and trigeminal sensory neurons.
CC   -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
CC       Mas subfamily.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between  the Swiss Institute of Bioinformatics  and the  EMBL outstation -
CC   the European Bioinformatics Institute.  There are no  restrictions on  its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; AF474989; AAL86880.2; -; Genomic_DNA.
DR   Ensembl; ENSG00000170255; Homo sapiens.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Glycoprotein; Receptor; Transducer;
KW   Transmembrane.
FT   TOPO_DOM      1     31       Extracellular (Potential).
FT   TRANSMEM     32     52       1 (Potential).
FT   TOPO_DOM     53     67       Cytoplasmic (Potential).
FT   TRANSMEM     68     88       2 (Potential).
FT   TOPO_DOM     89     96       Extracellular (Potential).
FT   TRANSMEM     97    117       3 (Potential).
FT   TOPO_DOM    118    144       Cytoplasmic (Potential).
FT   TRANSMEM    145    165       4 (Potential).
FT   TOPO_DOM    166    177       Extracellular (Potential).
FT   TRANSMEM    178    198       5 (Potential).
FT   TOPO_DOM    199    221       Cytoplasmic (Potential).
FT   TRANSMEM    222    242       6 (Potential).
FT   TOPO_DOM    243    254       Extracellular (Potential).
FT   TRANSMEM    255    275       7 (Potential).
FT   TOPO_DOM    276    322       Cytoplasmic (Potential).
FT   CARBOHYD     16     16       N-linked (GlcNAc. . .) (Potential).
SQ   SEQUENCE   322 AA;  36287 MW;  4C43E33E52DCBFF5 CRC64;

  Query Match             82.9%;  Score 1401;  DB 1;  Length 322;
  Best Local Similarity   82.9%;  Pred. No. 1.9e-92;
  Matches  267;  Conservative   22;  Mismatches   33;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              ||||:  | |:|||||| ||| || |||| | ||||:||| ||||||||||||||||||
Db          1 MDPTVSTLDTELTPINGTEETLCYKQTLSLTVLTCIVSLVGLTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||| ||:|||||| :|:|| |  |:| | ||||| ||| | || ||| |||:||||
Db         61 FSIYILNLAAADFLFLSGRLIYSLLSFISIPHTISKILYPVMMFSYFAGLSFLSAVSTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              |||:|||||| | || :||:|:|||||||||||||||| | ||||||:| ||:||||||
Db        121 CLSVLWPIWYRCHRPTHLSAVVCVLLWALSLLRSILEWMLCGFLFSGADSAWCQTSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              :|||:|||||||||||||:|||||||:|||||||||||||||||||||||||||||: ||
Db        181 VAWLIFLCVVLCGSSLVLLIRILCGSRKIPLTRLYVTILLTVLVFLLCGLPFGIQFFLFL 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||:| :|||||||||||||||||||||||||||||||| ||||||||||||||||||||
Db        241 WIHVDREVLFCHVHLVSIFLSALNSSANPIIYFFVGSLRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              ||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 4
MRGX1_HUMAN
ID   MRGX1_HUMAN    STANDARD;      PRT;   322 AA.
AC   Q96LB2; Q8TDD8;
DT   25-OCT-2004 (Rel. 45, Created)
DT   25-OCT-2004 (Rel. 45, Last sequence update)
DT   13-SEP-2005 (Rel. 48, Last annotation update)
DE   Mas-related G-protein coupled receptor member X1 (Sensory neuron-
DE   specific G-protein coupled receptor 4).
GN   Name=MRGPRX1; Synonyms=MRGX1, SNSR4;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
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OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=21435808; PubMed=11551509; DOI=10.1016/S0092-8674(01)00483-4;
RA   Dong X., Han S.-K., Zylka M.J., Simon M.I., Anderson D.J.;
RT   "A diverse family of GPCRs expressed in specific subsets of
RT   nociceptive sensory neurons.";
RL   Cell 106:619-632(2001).
RN   [2]
RP   NUCLEOTIDE SEQUENCE, AND TISSUE SPECIFICITY.
RX   MEDLINE=21853733; PubMed=11850634; DOI=10.1038/nn815;
RA   Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D., Roy M.-O.,
RA   Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., Labarre M.,
RA   Gosselin M., Fortin Y., Banville D., Shen S., Stroem P., Payza K.,
RA   Dray A., Walker P., Ahmad S.;
RT   "Proenkephalin A gene products activate a new family of sensory
RT   neuron-specific GPCRs.";
RL   Nat. Neurosci. 5:201-209(2002).
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=22040266; PubMed=12044878; DOI=10.1016/S0014-5793(02)02775-8;
RA   Takeda S., Kadowaki S., Haga T., Takaesu H., Mitaku S.;
RT   "Identification of G protein-coupled receptor genes from the human
RT   genome sequence.";
RL   FEBS Lett. 520:97-101(2002).
RN   [4]
RP   NUCLEOTIDE SEQUENCE.
RA   Suwa M., Sato T., Okouchi I., Arita M., Futami K., Matsumoto S.,
RA   Tsutsumi S., Aburatani H., Asai K., Akiyama Y.;
RT   "Genome-wide discovery and analysis of human seven transmembrane helix
RT   receptor genes.";
RL   Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: Orphan receptor. Probably involved in the function of
CC       nociceptive neurons. May regulate nociceptor function and/or
CC       development, including the sensation or modulation of pain.
CC       Potently activated by enkephalins including BAM22 (bovine adrenal
CC       medulla peptide 22) and BAM (8-22). BAM22 is the most potent
CC       compound and evoked a large and dose-dependent release of
CC       intracellular calcium in stably transfected cells. G(alpha)q
CC       proteins are involved in the calcium-signaling pathway.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC   -!- TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal
CC       root and trigeminal sensory neurons.
CC   -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
CC       Mas subfamily.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
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CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; AY042213; AAK91804.1; -; Genomic_DNA.
DR   EMBL; AF474990; AAL86881.1; -; Genomic_DNA.
DR   EMBL; AB083628; BAB89341.1; -; Genomic_DNA.
DR   EMBL; AB065846; BAC06064.1; -; Genomic_DNA.
DR   Ensembl; ENSG00000170255; Homo sapiens.
DR   HGNC; HGNC:17962; MRGPRX1.
DR   MIM; 607227; -.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Glycoprotein; Polymorphism; Receptor;
KW   Transducer; Transmembrane.
FT   TOPO_DOM      1     31       Extracellular (Potential).
FT   TRANSMEM     32     52       1 (Potential).
FT   TOPO_DOM     53     67       Cytoplasmic (Potential).
FT   TRANSMEM     68     88       2 (Potential).
FT   TOPO_DOM     89     96       Extracellular (Potential).
FT   TRANSMEM     97    117       3 (Potential).
FT   TOPO_DOM    118    144       Cytoplasmic (Potential).
FT   TRANSMEM    145    165       4 (Potential).
FT   TOPO_DOM    166    177       Extracellular (Potential).
FT   TRANSMEM    178    198       5 (Potential).
FT   TOPO_DOM    199    221       Cytoplasmic (Potential).
FT   TRANSMEM    222    242       6 (Potential).
FT   TOPO_DOM    243    254       Extracellular (Potential).
FT   TRANSMEM    255    275       7 (Potential).
FT   TOPO_DOM    276    322       Cytoplasmic (Potential).
FT   CARBOHYD     16     16       N-linked (GlcNAc. . .) (Potential).
FT   VARIANT      36     36       I -> V (in dbSNP:11024885).
FT                                /FTId=VAR_019432.
FT   CONFLICT      5      5       I -> V (in Ref. 2).
SQ   SEQUENCE   322 AA;  36250 MW;  C7F3A9F4418E8AD1 CRC64;

  Query Match             81.2%;  Score 1373;  DB 1;  Length 322;
  Best Local Similarity   82.0%;  Pred. No. 1.9e-90;
  Matches  264;  Conservative   22;  Mismatches   36;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              |||||  | |:|||||| ||| || |||| | ||||:||| ||||||||||||||||||
Db          1 MDPTISTLDTELTPINGTEETLCYKQTLSLTVLTCIVSLVGLTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||| ||:|||||| :|:| |  |:| | |||| ||| | || ||| |||:||||
Db         61 FSIYILNLAAADFLFLSGRLIYSLLSFISIPHTISKILYPVMMFSYFAGLSFLSAVSTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              |||:|||||| | || :||:|:|||||||||||||||| | ||||||:| ||:||||||
Db        121 CLSVLWPIWYRCHRPTHLSAVVCVLLWALSLLRSILEWMLCGFLFSGADSAWCQTSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              :|||:|||||||||||||:|||||||:|||||||||||||||||||||||||||: ||
Db        181 VAWLIFLCVVLCGSSLVLLIRILCGSRKIPLTRLYVTILLTVLVFLLCGLPFGIQFFLFL 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||:| :|||||||||||||||||||||||||||||||||||||||||||||||||||  |
Db        241 WIHVDREVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDASE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||| ||:| ||||||:|||
Db        301 VDEGGGQLPEEILELSGSRLEQ 322


RESULT 5
SNSR5_HUMAN
ID   SNSR5_HUMAN    STANDARD;      PRT;   322 AA.
AC   Q8TDD7;
DT   25-OCT-2004 (Rel. 45, Created)
DT   25-OCT-2004 (Rel. 45, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   Sensory neuron-specific G-protein coupled receptor 5.
GN   Name=SNSR5;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE, AND TISSUE SPECIFICITY.
RX   MEDLINE=21853733; PubMed=11850634; DOI=10.1038/nn815;
RA   Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D., Roy M.-O.,
RA   Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., Labarre M.,
RA   Gosselin M., Fortin Y., Banville D., Shen S., Stroem P., Payza K.,
RA   Dray A., Walker P., Ahmad S.;
RT   "Proenkephalin A gene products activate a new family of sensory
RT   neuron-specific GPCRs.";
RL   Nat. Neurosci. 5:201-209(2002).
CC   -!- FUNCTION: Orphan receptor. Probably involved in the function of
CC       nociceptive neurons. May regulate nociceptor function and/or
CC       development, including the sensation or modulation of pain.
CC       Potently activated by enkephalins (By similarity).
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein.
```

```
CC   -!- TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal
CC       root and trigeminal sensory neurons.
CC   -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
CC       Mas subfamily.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; AF474991; AAL86882.1; -; Genomic_DNA.
DR   Ensembl; ENSG00000179817; Homo sapiens.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Glycoprotein; Receptor; Transducer;
KW   Transmembrane.
FT   TOPO_DOM      1     31       Extracellular (Potential).
FT   TRANSMEM     32     52       1 (Potential).
FT   TOPO_DOM     53     60       Cytoplasmic (Potential).
FT   TRANSMEM     61     81       2 (Potential).
FT   TOPO_DOM     82     96       Extracellular (Potential).
FT   TRANSMEM     97    117       3 (Potential).
FT   TOPO_DOM    118    137       Cytoplasmic (Potential).
FT   TRANSMEM    138    158       4 (Potential).
FT   TOPO_DOM    159    177       Extracellular (Potential).
FT   TRANSMEM    178    198       5 (Potential).
FT   TOPO_DOM    199    218       Cytoplasmic (Potential).
FT   TRANSMEM    219    239       6 (Potential).
FT   TOPO_DOM    240    254       Extracellular (Potential).
FT   TRANSMEM    255    275       7 (Potential).
FT   TOPO_DOM    276    322       Cytoplasmic (Potential).
FT   CARBOHYD     89     89       N-linked (GlcNAc. . .) (Potential).
SQ   SEQUENCE   322 AA;  36424 MW;  3D6FFB4B5DDFDD90 CRC64;

  Query Match             81.0%;  Score 1370;  DB 1;  Length 322;
  Best Local Similarity   83.1%;  Pred. No. 3.2e-90;
  Matches  266;  Conservative   21;  Mismatches   33;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              ||||:||||||||||||||||||| |||||| |||||||| ||||||||||||||||||
Db          1 MDPTVPVLGTKLTPINGREETPCYKQTLSFTVLTCIISLVGLTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              |||||||| ||:|||||  || ||| |||| | | |||  ||||||| ||||||||||||
Db         61 VSIYILNLAAADFLFLSFQIIRSPLRLINISHLIRKILVSVMTFPYFTGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              |||:|||||| |||| :||:|:||||| |||| |:||| |||||||||:| ||||||||
Db        121 CLSVLWPIWYRCRRPTHLSAVVCVLLWGLSLLFSMLEWRFCDFLFSGADSSWCETSDFIP 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              :|||:||||||| ||||||||||||||||||||||||||||||||||||||||  ||
Db        181 VAWLIFLCVVLCVSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGILGALIY 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              |:||: :||:|||:|| : ||:|||||||||||||||||||||||||||||||||| ||
Db        241 RMHLNLEVLYCHVYLVCMSLSSLNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDKPE 300

Qy        301 VDEGGGWLPQETLELSGSKL 320
              ||:| | ||:|:|||||| :|
Db        301 VDKGEGQLPEESLELSGRRL 320


RESULT 6
Q4V9L2_HUMAN
ID   Q4V9L2_HUMAN PRELIMINARY;      PRT;   322 AA.
AC   Q4V9L2;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   G protein-coupled receptor MRGX1.
GN   Name=MRGPRX1;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=G-protein coupled receptors;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=G-protein coupled receptors;
RG   NIH MGC Project;
RL   Submitted (JUN-2005) to the EMBL/GenBank/DDBJ databases.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
DR   EMBL; BC096835; AAH96835.1; -; mRNA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transducer; Transmembrane.
SQ   SEQUENCE   322 AA;  36236 MW;  C7F219F4418E8AD1 CRC64;

  Query Match             81.0%;  Score 1370;  DB 2;  Length 322;
  Best Local Similarity   81.7%;  Pred. No. 3.2e-90;
  Matches  263;  Conservative   23;  Mismatches   36;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              |||||  | |:|||||| ||| || |||| | ||||:||| ||||||||||||||||||
Db          1 MDPTISTLDTELTPINGTEETLCYKQTLSLTVLTCIVSLVGLTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||| ||:|||||| :|:| |  |:| | ||||| ||| | || ||| |||:||||
Db         61 FSIYILNLAAADFLFLSGRLIYSLLSFISIPHTISKILYPVMMFSYFAGLSFLSAVSTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              |||:|||||| | || :||:|:|||||||||||||||| | ||||||:| ||:||||||
Db        121 CLSVLWPIWYRCHRPTHLSAVVCVLLWALSLLRSILEWMLCGFLFSGADSAWCQTSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              :|||:|||||||||||:||||||:|||||||||||||||||||||||||||||||||: ||
Db        181 VAWLIFLCVVLCGSSLVLLIRILCGSRKIPLTRLYVTILLTVLVFLLCGLPFGIQFFLFL 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||:| :|||||||||||||||||||||||||||||||||||||||||||||||||  |
Db        241 WIHVDREVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDASE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||| ||:| ||||||:|:|
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Db        301 VDEGGGQLPEEILELSGSRLDQ 322


RESULT 7
MRGX4_HUMAN
ID   MRGX4_HUMAN    STANDARD;      PRT;   322 AA.
AC   Q96LA9; Q502W0; Q8TDD6;
DT   25-OCT-2004 (Rel. 45, Created)
DT   25-OCT-2004 (Rel. 45, Last sequence update)
DT   13-SEP-2005 (Rel. 48, Last annotation update)
DE   Mas-related G-protein coupled receptor member X4 (Sensory neuron-
DE   specific G-protein coupled receptor 6).
GN   Name=MRGPRX4; Synonyms=MRGX4, SNSR6;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE [GENOMIC DNA].
RX   MEDLINE=21435808; PubMed=11551509; DOI=10.1016/S0092-8674(01)00483-4;
RA   Dong X., Han S.-K., Zylka M.J., Simon M.I., Anderson D.J.;
RT   "A diverse family of GPCRs expressed in specific subsets of
RT   nociceptive sensory neurons.";
RL   Cell 106:619-632(2001).
RN   [2]
RP   NUCLEOTIDE SEQUENCE [GENOMIC DNA], AND TISSUE SPECIFICITY.
RX   MEDLINE=21853733; PubMed=11850634; DOI=10.1038/nn815;
RA   Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D., Roy M.-O.,
RA   Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., Labarre M.,
RA   Gosselin M., Fortin Y., Banville D., Shen S., Stroem P., Payza K.,
RA   Dray A., Walker P., Ahmad S.;
RT   "Proenkephalin A gene products activate a new family of sensory
RT   neuron-specific GPCRs.";
RL   Nat. Neurosci. 5:201-209(2002).
RN   [3]
RP   NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC   -!- FUNCTION: Orphan receptor. Probably involved in the function of
CC       nociceptive neurons. May regulate nociceptor function and/or
CC       development, including the sensation or modulation of pain.
CC       Potently activated by enkephalins (By similarity).
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC   -!- TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal
CC       root and trigeminal sensory neurons.
CC   -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
CC       Mas subfamily.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; AY042216; AAK91807.1; -; Genomic_DNA.
DR   EMBL; AF474992; AAL86883.1; -; Genomic_DNA.
DR   EMBL; BC095509; AAH95509.1; -; mRNA.
DR   Ensembl; ENSG00000179817; Homo sapiens.
DR   HGNC; HGNC:17617; MRGPRX4.
DR   MIM; 607230; -.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Glycoprotein; Polymorphism; Receptor;
KW   Transducer; Transmembrane.
FT   TOPO_DOM      1     31       Extracellular (Potential).
FT   TRANSMEM     32     52       1 (Potential).
FT   TOPO_DOM     53     60       Cytoplasmic (Potential).
FT   TRANSMEM     61     81       2 (Potential).
FT   TOPO_DOM     82     96       Extracellular (Potential).
FT   TRANSMEM     97    117       3 (Potential).
FT   TOPO_DOM    118    137       Cytoplasmic (Potential).
FT   TRANSMEM    138    158       4 (Potential).
FT   TOPO_DOM    159    177       Extracellular (Potential).
FT   TRANSMEM    178    198       5 (Potential).
FT   TOPO_DOM    199    218       Cytoplasmic (Potential).
FT   TRANSMEM    219    239       6 (Potential).
FT   TOPO_DOM    240    254       Extracellular (Potential).
FT   TRANSMEM    255    275       7 (Potential).
FT   TOPO_DOM    276    322       Cytoplasmic (Potential).
FT   CARBOHYD     25     25       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD     89     89       N-linked (GlcNAc. . .) (Potential).
FT   VARIANT       8      8       F -> L (in dbSNP:2468774).
FT                                 /FTId=VAR_019435.
FT   VARIANT      25     25       N -> K (in dbSNP:2445180).
FT                                 /FTId=VAR_019436.
FT   VARIANT      54     54       Y -> C (in dbSNP:1869788).
FT                                 /FTId=VAR_019437.
FT   VARIANT      83     83       S -> L (in dbSNP:2445179).
FT                                 /FTId=VAR_019438.
FT   CONFLICT    182    182       A -> V (in Ref. 2).
FT   CONFLICT    319    319       R -> K (in Ref. 2).
SQ   SEQUENCE   322 AA;  36434 MW;  7CA676F8BD390A31 CRC64;

  Query Match             80.8%;  Score 1366;  DB 1;  Length 322;
  Best Local Similarity   83.1%;  Pred. No. 6.1e-90;
  Matches  266;  Conservative   21;  Mismatches   33;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              ||||:|| |||||||||||||||||||||||| |||||||| |||||||||||| ||||||
Db          1 MDPTVPVFGTKLTPINGREETPCYNQTLSFTVLTCIISLVGLTGNAVVLWLLGYRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              |||||||| ||:|||||  || ||| |||| | | |||  ||||||| ||||||||||||
Db         61 VSIYILNLAAADFLFLSFQIIRSPLRLINISHLIRKILVSVMTFPYFTGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              |||:|||||| |||| :||:|:||||| |||| |:||| |||||||||:| ||||||||
Db        121 CLSVLWPIWYRCRRPTHLSAVVCVLLWGLSLLFSMLEWRFCDFLFSGADSSWCETSDFIP 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              :|||:||||||| |||||||||||||||||||||||||||||||||||||||||||  ||
Db        181 VAWLIFLCVVLCVSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGILGALIY 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              |:||: :||:|||:|| : ||:||||||||||||||||||||||||||||||||||| ||
Db        241 RMHLNLEVLYCHVYLVCMSLSSLNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDKPE 300

Qy        301 VDEGGGWLPQETLELSGSKL 320
              ||:| | ||:|:||||||:|
Db        301 VDKGEGQLPEESLELSGSRL 320


RESULT 8
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Q5U9E0_MACFA
ID   Q5U9E0_MACFA PRELIMINARY;      PRT;   322 AA.
AC   Q5U9E0;
DT   01-FEB-2005 (TrEMBLrel. 29, Created)
DT   01-FEB-2005 (TrEMBLrel. 29, Last sequence update)
DT   01-FEB-2005 (TrEMBLrel. 29, Last annotation update)
DE   Mas-related protein X1/7.
GN   Name=MrgX1/7;
OS   Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC   Cercopithecidae; Cercopithecinae; Macaca.
OX   NCBI_TaxID=9541;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Zhang L., Taylor N., Ford R., Johnson J., Paulsen J.E., Bates B.;
RT   "Cloning and Expression of MRG Receptors in Macaque, Mouse, and
RT   Human.";
RL   Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
DR   EMBL; AY772457; AAV49124.1; -; Genomic_DNA.
DR   GO; GO:0016021; C:integral to membrane; IEA.
DR   GO; GO:0004872; F:receptor activity; IEA.
DR   GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR   GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR   GO; GO:0007165; P:signal transduction; IEA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transducer; Transmembrane.
SQ   SEQUENCE   322 AA;  36781 MW;  54F5801F294BE07B CRC64;

  Query Match             78.9%;  Score 1334;  DB 2;  Length 322;
  Best Local Similarity   79.2%;  Pred. No. 1.2e-87;
  Matches  255;  Conservative   27;  Mismatches   40;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              |||||  | |:|||||  | |||| ||||| ||||||||| |||||||||||| || :||
Db          1 MDPTISTLDTELTPINRTEATPCYKQTLSFMGLTCIISLVGLTGNAVVLWLLGFRMHKNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              |||||||  |:|||||  |:| |  |::   ||||| ||| | || ||| |||:||||
Db         61 FSIYILNLSMADFLFLSGRFIYSLLSFISVPQTISKILYPVMMFSYFAGLSFLSAMSTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              |||:|||:|| |||| :|| |:||||| ||||||||:|| ||||||: |||:||||||
Db        121 CLSVLWPMWYRCRRPTHLSVVLCVLLWVLSLLRSILEWIFCGFLFSGADPVWCQTSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              :|||:||||||| |||||::|||||||||||||||||||||||||||:|: ||
Db        181 VAWLIFLCVVLCVSSLVLVIRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGVQFFLFL 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||:| |||:|||||||:||:|||||||||||||||||||||||:|:||||||||||
Db        241 WIHVDRKVLYCHVHLVSMFLAALNSSANPIIYFFVGSFRQRQNRQNLRLILQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||| ||:|||||||| ||
Db        301 VDEGGGRLPEETLELSGSKWEQ 322


RESULT 9
Q5U9D6_MACFA
ID   Q5U9D6_MACFA PRELIMINARY;      PRT;   322 AA.
AC   Q5U9D6;
DT   01-FEB-2005 (TrEMBLrel. 29, Created)
DT   01-FEB-2005 (TrEMBLrel. 29, Last sequence update)
DT   01-FEB-2005 (TrEMBLrel. 29, Last annotation update)
DE   Mas-related protein X8.
GN   Name=MrgX8;
OS   Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC   Cercopithecidae; Cercopithecinae; Macaca.
OX   NCBI_TaxID=9541;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Zhang L., Taylor N., Ford R., Johnson J., Paulsen J.E., Bates B.;
RT   "Cloning and Expression of MRG Receptors in Macaque, Mouse, and
RT   Human.";
RL   Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
DR   EMBL; AY772461; AAV49128.1; -; Genomic_DNA.
DR   GO; GO:0016021; C:integral to membrane; IEA.
DR   GO; GO:0004872; F:receptor activity; IEA.
DR   GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR   GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR   GO; GO:0007165; P:signal transduction; IEA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transducer; Transmembrane.
SQ   SEQUENCE   322 AA;  36514 MW;  2C7A0B9C21F4287E CRC64;

  Query Match             72.4%;  Score 1225;  DB 2;  Length 322;
  Best Local Similarity   75.8%;  Pred. No. 7.6e-80;
  Matches  244;  Conservative   21;  Mismatches   57;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||  |||||||| ||| || | ||||:||: ||||||||||| ||||||
Db          1 MDSTIPVLGTSQTPINGREEMPCYKLTLILTVLTCIVSLLGLTGNAVVLWLLGFRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||| ||:|||| |||  | |||| | | :||  |||  :  ||:|||||||||
Db         61 FSIYILNLAAADFLFLCVHIIRLLLRLINILHTIRRILVCVMTVSHLTGLNMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              || :|||||| | || :||:|:|||||||||| |||||||| | | |:  |||| ||
Db        121 CLCVLWPIWYRCHRPTHLSAVVCVLLWALSLLWSILEWMFCDSLLSDADPHWCETLGFIA 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              | ||: |||||||||| |||||||||:|||||||||||||||||||||||||||  :|
Db        181 IVWLIVLCVVLCGSSLALLVRILCGSQKMPLTRLYVTILLTVLVFLLCGLPFGILGSLNY 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              || | :||:|||: | :|||:||||||||||||||||||||||||||||||||||||
Db        241 MIHRDLEVLYCHVYRVCMFLSSLNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||| ||:|||||| |:  |
Db        301 VDEGGGRLPEETLELSVSRCRQ 322


RESULT 10
Q4QXU4_TRAFR
ID   Q4QXU4_TRAFR PRELIMINARY;      PRT;   330 AA.
AC   Q4QXU4;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   MRGX2.
GN   Name=MRGX2;
OS   Trachypithecus francoisi (Francois' langur) (Indochinese langur).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC   Cercopithecidae; Colobinae; Trachypithecus.
OX   NCBI_TaxID=54180;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   PubMed=15862286; DOI=10.1016/j.gene.2005.03.001;
RA   Yang S., Liu Y., Lin A.A., Cavalli-Sforza L.L., Zhao Z., Su B.;
RT   "Adaptive evolution of MRGX2, a human sensory neuron specific gene
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RT   involved in nociception.";
RL   Gene 352C:30-35(2005).
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
DR   EMBL; AY651164; AAW70077.1; -; Genomic_DNA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transducer; Transmembrane.
SQ   SEQUENCE   330 AA;  37043 MW;  4EE8ADD391CE443A CRC64;

  Query Match             59.0%;  Score 998.5;  DB 2;  Length 330;
  Best Local Similarity   63.8%;  Pred. No. 1.3e-63;
  Matches  210;  Conservative   28;  Mismatches   82;  Indels    9;  Gaps    3;

Qy        1 MDPTIPVLGTKLTPINGREET---PCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMR 57
            |||| | ||: | :|| ::     |  :||     |   |:|| | ||| |||||| |||
Db        1 MDPTTLVWGTESTTMNGNDQALPLLCGKETLILVVLILFIALVGLVGNAFVLWLLGFRMR 60

Qy       58 RNAVSIYILNLVAANFLFLSGHIIFSPLPLINIRHPIS----KILSPVMTFPYFIGLSML 113
            ||| |:|:|:|  |:||||   :|     ||| | ||       : |||  |  |||||
Db       61 RNAFSVYVLSLAGADFLFLCFPMINCLAYLINFFHSISINFPSFFTTVMTCAYLAGLSML 120

Qy      114 SAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWC 173
            ||||||||||:|||||  ||||:||:||||||||||| |||| || |||  :| ||
Db      121 SAISTERCLSVLWPIWYRSRRPRHLSAVMCVLLWALSLLLSILEGKFCGFLFSDGDSGWC 180

Qy      174 ETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFG 233
            :| |||| |||:|| |||||||| |||||||||| :|||||:|||||||:|||||||||
Db      181 QTFDFITAAWLMFLFVVLCGSSLALLVRILCGSRGLPLTRLYLTILLTVLIFLLCGLPFG 240

Qy      234 IQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQ--RQNRQNLKLVL 291
            ||| |   |  :  |||||:| ||: ||: ||||||||||||||||:  |  :  ||| |
Db      241 IQWFLILWIWKNSDVLFCHIHPVSVVLSSFNSSANPIIYFFVGSFRKQWRLRQPVLKLAL 300

Qy      292 QRALQDTPEVDEGGGWLPQETLELSGSKL 320
            ||||||| |||   |   | |||:||| |
Db      301 QRALQDTAEVDHSEGCFSQGTLEMSGSSL 329


RESULT 11
Q4QXU2_PYGBI
ID   Q4QXU2_PYGBI PRELIMINARY;      PRT;   330 AA.
AC   Q4QXU2;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   MRGX2.
GN   Name=MRGX2;
OS   Pygathrix bieti (Black snub-nosed monkey) (Rhinopithecus bieti).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC   Cercopithecidae; Colobinae; Pygathrix.
OX   NCBI_TaxID=61621;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   PubMed=15862286; DOI=10.1016/j.gene.2005.03.001;
RA   Yang S., Liu Y., Lin A.A., Cavalli-Sforza L.L., Zhao Z., Su B.;
RT   "Adaptive evolution of MRGX2, a human sensory neuron specific gene
RT   involved in nociception.";
RL   Gene 352C:30-35(2005).
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
DR   EMBL; AY651166; AAW70079.1; -; Genomic_DNA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transducer; Transmembrane.
SQ   SEQUENCE   330 AA;  37007 MW;  F91875540B4716DE CRC64;

  Query Match             59.0%;  Score 998.5;  DB 2;  Length 330;
  Best Local Similarity   63.2%;  Pred. No. 1.3e-63;
  Matches  208;  Conservative   30;  Mismatches   82;  Indels    9;  Gaps    3;

Qy        1 MDPTIPVLGTKLTPINGREET---PCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMR 57
            |||| |  ||: | :|| ::     |  :||     |   |:|| | ||| |||||| |||
Db        1 MDPTTPAWGTESTTMNGNDQALPLLCGKETLILVLLILFIALVGLVGNAFVLWLLGFRMR 60

Qy       58 RNAVSIYILNLVAANFLFLSGHIIFSPLPLINIRHPIS----KILSPVMTFPYFIGLSML 113
            ||| |:|:|:|  |:||||   :|     ||| | ||       : |||  |  |||||
Db       61 RNAFSVYVLSLAGADFLFLCFPMINCLEYLINFFHSISINFPSFFTTVMTCAYLAGLSML 120

Qy      114 SAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWC 173
            ||||||||||:|||||  |||||:||:|:|||||||||| ||||  ||  |||  :| ||
Db      121 SAISTERCLSVLWPIWYRCRRPRHLSAVLCVLLWALSLLLSILEGKFCGLLFSDGDSGWC 180

Qy      174 ETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFG 233
            :| |||| |||:|| |||||||| |||||||||: :|||||:|||||||:|||||||||
Db      181 QTFDFITAAWLMFLFVVLCGSSLALLVRILCGSQGLPLTRLYLTILLTVLIFLLCGLPFG 240

Qy      234 IQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQ--RQNRQNLKLVL 291
            ||| |   |  :  |||||:| ||: ||: ||||||||||||||||:  |  :  ||| |
Db      241 IQWFLILWIWKNSDVLFCHIHPVSVVLSSFNSSANPIIYFFVGSFRKQWRLRQPVLKLAL 300

Qy      292 QRALQDTPEVDEGGGWLPQETLELSGSKL 320
            ||||||| |||   |   | |||:||| |
Db      301 QRALQDTAEVDHSEGCFSQGTLEMSGSSL 329


RESULT 12
MRGX2_MACFA
ID   MRGX2_MACFA    STANDARD;      PRT;   330 AA.
AC   Q5U9D9;
DT   10-MAY-2005 (Rel. 47, Created)
DT   10-MAY-2005 (Rel. 47, Last sequence update)
DT   13-SEP-2005 (Rel. 48, Last annotation update)
DE   Mas-related G-protein coupled receptor member X2.
GN   Name=MRGPRX2; Synonyms=MRGX2;
OS   Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC   Cercopithecidae; Cercopithecinae; Macaca.
OX   NCBI_TaxID=9541;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Zhang L., Taylor N., Ford R., Johnson J., Paulsen J.E., Bates B.;
RT   "Cloning and expression of MRG receptors in macaque, mouse, and
RT   human.";
RL   Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: Orphan receptor. Probably involved in the function of
CC       nociceptive neurons. May regulate nociceptor function and/or
CC       development, including the sensation or modulation of pain (By
CC       similarity).
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC   -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
CC       Mas subfamily.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; AY772458; AAV49125.1; -; Genomic_DNA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; FALSE_NEG.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transducer; Transmembrane.
FT   TOPO_DOM      1     33       Extracellular (Potential).
FT   TRANSMEM     34     54       1 (Potential).
FT   TOPO_DOM     55     63       Cytoplasmic (Potential).
FT   TRANSMEM     64     84       2 (Potential).
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FT   TOPO_DOM     85     96       Extracellular (Potential).
FT   TRANSMEM     97    117       3 (Potential).
FT   TOPO_DOM    118    144       Cytoplasmic (Potential).
FT   TRANSMEM    145    165       4 (Potential).
FT   TOPO_DOM    166    184       Extracellular (Potential).
FT   TRANSMEM    185    205       5 (Potential).
FT   TOPO_DOM    206    228       Cytoplasmic (Potential).
FT   TRANSMEM    229    249       6 (Potential).
FT   TOPO_DOM    250    264       Extracellular (Potential).
FT   TRANSMEM    265    285       7 (Potential).
FT   TOPO_DOM    286    330       Cytoplasmic (Potential).
SQ   SEQUENCE   330 AA;  37090 MW;  6C783BDBC7EC246E CRC64;

  Query Match             58.0%;  Score 980.5;  DB 1;  Length 330;
  Best Local Similarity   62.6%;  Pred. No. 2.5e-62;
  Matches  206;  Conservative   29;  Mismatches   85;  Indels    9;  Gaps    3;

Qy          1 MDPTIPVLGTKLTPINGREET---PCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMR 57
              |||| |  ||: | :|| ::     |  :|:    |   |:|| | ||| |||||| |||
Db          1 MDPTTPAWGTESTTMNGNDQALPLLCGKETMISVFLILFIALVGLVGNAFVLWLLGFRMR 60

Qy         58 RNAVSIYILNLVAANFLFLSGHIIFSPLPLININRHPIS----KILSPVMTFPYFIGLSML 113
              ||| |:|:|:|  |:|||   :      |||    ||     : |||     |||||
Db         61 RNAFSVYVLSLAGADFLFLCFQMTNCLAYLINFFGSISINFPSFFTTVMTCACLAGLSML 120

Qy        114 SAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWC 173
              |||||:|||||||||||| |||||:||:|||||||||||| ||||  || ||||  :| ||
Db        121 SAISTQRCLSILWPIWYRCRRPRHLSAVMCVLLWALSLLLSILEGKFCGFLFSDGDSGWC 180

Qy        174 ETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFG 233
              :| |||| |||:|| |||||||| |||||||||| :||||||:|||||||:||||||||
Db        181 QTFDFITAAWLMFLFVVLCGSSLALLVRILCGSRSLPLTRLYLTILLTVLIFLLCGLPFG 240

Qy        234 IQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQ--RQNRQNLKLVL 291
              ||| |   |  :  |||||:| ||: ||: ||||||||||||||||:  |  :  ||| |
Db        241 IQWFLILWIWKNSDVLFCHIHPVSVVLSSFNSSANPIIYFFVGSFRKQWRLRQPILKLAL 300

Qy        292 QRALQDTPEVDEGGGWLPQETLELSGSKL 320
              ||||||| |||   |   | |||:| | |
Db        301 QRALQDTAEVDHSEGCFSQGTLEMSRSSL 329


RESULT 13
Q4QXU5_MACMU
ID   Q4QXU5_MACMU PRELIMINARY;      PRT;   329 AA.
AC   Q4QXU5;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   MRGX2.
GN   Name=MRGX2;
OS   Macaca mulatta (Rhesus macaque).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC   Cercopithecidae; Cercopithecinae; Macaca.
OX   NCBI_TaxID=9544;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   PubMed=15862286; DOI=10.1016/j.gene.2005.03.001;
RA   Yang S., Liu Y., Lin A.A., Cavalli-Sforza L.L., Zhao Z., Su B.;
RT   "Adaptive evolution of MRGX2, a human sensory neuron specific gene
RT   involved in nociception.";
RL   Gene 352C:30-35(2005).
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
DR   EMBL; AY651163; AAW70076.1; -; Genomic_DNA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transducer; Transmembrane.
SQ   SEQUENCE   329 AA;  37041 MW;  02AB400A7BC7EB99 CRC64;

  Query Match             58.0%;  Score 980;  DB 2;  Length 329;
  Best Local Similarity   63.0%;  Pred. No. 2.7e-62;
  Matches  209;  Conservative   28;  Mismatches   79;  Indels   16;  Gaps    6;

Qy          1 MDPTIPVLGTKLTPINGREET---PCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMR 57
              |||| |  ||: | :|| ::     |  :|:    |   |:|| | ||| |||||| |||
Db          1 MDPTTPAWGTESTTMNGNDQALPLLCGKETMISVFLILFIALVGLVGNAFVLWLLGFRMR 60

Qy         58 RNAVSIYILNLVAANFLFLSGHIIFSPLPLININRHPISKILSP----VMTFPYFIGLSML 113
              ||| |:|:|:|  |:|||   :      |||    || | |    |||  |  |||||
Db         61 RNAFSVYVLSLAGADFLFLCFQMTSCLAYLINFFGSIS-INIPSFFTVMTCAYLAGLSML 119

Qy        114 SAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWC 173
              |||||||||:|||||| |||||:||:|||||||||||| ||||  || ||||  :  ||
Db        120 SAISTERCLSVLWPIWYRCRRPRHLSAVMCVLLWALSLLLSILEGKFCGFLFSDDDPGWC 179

Qy        174 ETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFG 233
              :| |||| |||:|| |||||||| |||||||||| :||||||:|||||||:|||||||||
Db        180 QTFDFITAAWLMFLFVVLCGSSLALLVRILCGSRSLPLTRLYLTILLTVLIFLLCGLPFG 239

Qy        234 IQWALFSRIHLDWK---VLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQ--RQNRQNLK 288
              ||| |   |   ||   |||||:| :|: ||: ||||||||||||||||:  |  :  ||
Db        240 IQWFLILWI---WKNSVVLFCHIHPISVVLSSFNSSANPIIYFFVGSFRKQWRLRQPILK 296

Qy        289 LVLQRALQDTPEVDEGGGWLPQETLELSGSKL 320
              | |||||||| |||   |   | |||:| | |
Db        297 LALQRALQDTAEVDHSEGCFSQGTLEMSRSSL 328


RESULT 14
MRGX2_HUMAN
ID   MRGX2_HUMAN    STANDARD;      PRT;   330 AA.
AC   Q96LB1;
DT   25-OCT-2004 (Rel. 45, Created)
DT   25-OCT-2004 (Rel. 45, Last sequence update)
DT   13-SEP-2005 (Rel. 48, Last annotation update)
DE   Mas-related G-protein coupled receptor member X2.
GN   Name=MRGPRX2; Synonyms=MRGX2;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=21435808; PubMed=11551509; DOI=10.1016/S0092-8674(01)00483-4;
RA   Dong X., Han S.-K., Zylka M.J., Simon M.I., Anderson D.J.;
RT   "A diverse family of GPCRs expressed in specific subsets of
RT   nociceptive sensory neurons.";
RL   Cell 106:619-632(2001).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=22040266; PubMed=12044878; DOI=10.1016/S0014-5793(02)02775-8;
RA   Takeda S., Kadowaki S., Haga T., Takaesu H., Mitaku S.;
RT   "Identification of G protein-coupled receptor genes from the human
RT   genome sequence.";
RL   FEBS Lett. 520:97-101(2002).
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RA   Suwa M., Sato T., Okouchi I., Arita M., Futami K., Matsumoto S.,
RA   Tsutsumi S., Aburatani H., Asai K., Akiyama Y.;
RT   "Genome-wide discovery and analysis of human seven transmembrane helix
RT   receptor genes.";
RL   Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC   TISSUE=Brain;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
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RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [5]
RP   TISSUE SPECIFICITY, AND POSSIBLE FUNCTION.
RX   PubMed=12915402; DOI=10.1074/jbc.M302456200;
RA   Robas N., Mead E., Fidock M.;
RT   "MrgX2 is a high potency cortistatin receptor expressed in dorsal root
RT   ganglion.";
RL   J. Biol. Chem. 278:44400-44404(2003).
CC   -!- FUNCTION: Orphan receptor. Probably involved in the function of
CC       nociceptive neurons. May regulate nociceptor function and/or
CC       development, including the sensation or modulation of pain.
CC       Cortistatin-14 seems to be a high potency ligand at this receptor.
CC       Cortistatin has several biological functions including roles in
CC       sleep regulation locomotor activity, and cortical function. In
CC       receptor-expressing cells, cortistatin-stimulated increases in
CC       intracellular Ca(2+) but had no effect on basal or forskolin-
CC       stimulated cAMP levels, suggesting that this receptor is G(q)-
CC       coupled.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC   -!- TISSUE SPECIFICITY: Has a limited expression profile, both
CC       peripheral and within the central nervous system, with highest
CC       levels in dorsal root ganglion.
CC   -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
CC       Mas subfamily.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; AY042214; AAK91805.1; -; Genomic_DNA.
DR   EMBL; AB083626; BAB89339.1; -; Genomic_DNA.
DR   EMBL; AB065811; BAC06030.1; -; Genomic_DNA.
DR   EMBL; BC063450; AAH63450.1; -; mRNA.
DR   Ensembl; ENSG00000183695; Homo sapiens.
DR   HGNC; HGNC:17983; MRGPRX2.
DR   MIM; 607228; -.
DR   GO; GO:0016021; C:integral to membrane; IC.
DR   GO; GO:0004930; F:G-protein coupled receptor activity; IDA.
DR   GO; GO:0042923; F:neuropeptide binding; IPI.
DR   GO; GO:0019233; P:perception of pain; NAS.
DR   GO; GO:0030431; P:sleep; NAS.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Polymorphism; Receptor; Transducer;
KW   Transmembrane.
FT   TOPO_DOM      1     33       Extracellular (Potential).
FT   TRANSMEM     34     54       1 (Potential).
FT   TOPO_DOM     55     63       Cytoplasmic (Potential).
FT   TRANSMEM     64     84       2 (Potential).
FT   TOPO_DOM     85     96       Extracellular (Potential).
FT   TRANSMEM     97    117       3 (Potential).
FT   TOPO_DOM    118    144       Cytoplasmic (Potential).
FT   TRANSMEM    145    165       4 (Potential).
FT   TOPO_DOM    166    184       Extracellular (Potential).
FT   TRANSMEM    185    205       5 (Potential).
FT   TOPO_DOM    206    228       Cytoplasmic (Potential).
FT   TRANSMEM    229    249       6 (Potential).
FT   TOPO_DOM    250    264       Extracellular (Potential).
FT   TRANSMEM    265    285       7 (Potential).
FT   TOPO_DOM    286    330       Cytoplasmic (Potential).
FT   VARIANT      62     62       N -> S (in dbSNP:10833049).
FT                                /FTId=VAR_019433.
SQ   SEQUENCE   330 AA;  37099 MW;  0B328FD78B1DF6BE CRC64;

  Query Match             57.9%;  Score 978.5;  DB 1;  Length 330;
  Best Local Similarity   62.3%;  Pred. No. 3.5e-62;
  Matches  205;  Conservative   29;  Mismatches   86;  Indels    9;  Gaps    3;

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Qy         58 RNAVSIYILNLVAANFLFLSGHIIFSPLPLINIRHPIS----KILSPVMTFPYFIGLSML 113
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Qy        114 SAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWC 173
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Qy        174 ETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFG 233
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RESULT 15
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DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
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GN   Name=MRGX2;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   PubMed=15862286; DOI=10.1016/j.gene.2005.03.001;
RA   Yang S., Liu Y., Lin A.A., Cavalli-Sforza L.L., Zhao Z., Su B.;
RT   "Adaptive evolution of MRGX2, a human sensory neuron specific gene
RT   involved in nociception.";
RL   Gene 352C:30-35(2005).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RA   Yang S., Liu Y., Lin A.A., Cavalli-Sforza L.L., Zhao Z., Su B.;
RT   "Adaptive evolution of MRGX2, a human sensory neuron specific gene
RT   involved in nociception.";
RL   Gene 352:30-35(2005).
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
DR   EMBL; AY651160; AAW70073.1; -; Genomic_DNA.
DR   EMBL; AY651161; AAW70074.1; -; Genomic_DNA.
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DR   EMBL; AY651144; AAW70057.1; -; Genomic_DNA.
DR   EMBL; AY845175; AAW70082.1; -; Genomic_DNA.
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DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transducer; Transmembrane.
SQ   SEQUENCE   330 AA;  37099 MW;  0B328FD78B1DF6BE CRC64;

  Query Match             57.9%;  Score 978.5;  DB 2;  Length 330;
  Best Local Similarity   62.3%;  Pred. No. 3.5e-62;
  Matches  205;  Conservative   29;  Mismatches   86;  Indels    9;  Gaps    3;

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Qy         58 RNAVSIYILNLVAANFLFLSGHIIFSPLPLINIRHPIS----KILSPVMTFPYFIGLSML 113
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GenCore version 5.1.7
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OM protein - protein search, using sw model

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Scoring table: BLOSUM62
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Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

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Post-processing: Minimum Match 0%
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Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1691	100.0	322	2	US-09-254-227A-3	Sequence 3, Appli
2	1637	96.8	322	2	US-10-401-397A-2	Sequence 2, Appli
3	1571	92.9	322	2	US-09-254-227A-5	Sequence 5, Appli
4	1395	82.5	322	2	US-09-254-227A-7	Sequence 7, Appli
5	1381	81.7	322	2	US-09-254-227A-9	Sequence 9, Appli
6	1373	81.2	322	2	US-10-314-048A-20	Sequence 20, Appl
7	1365	80.7	322	2	US-09-254-227A-13	Sequence 13, Appl
8	1356	80.2	322	2	US-09-254-227A-11	Sequence 11, Appl
9	978.5	57.9	330	2	US-10-314-048A-30	Sequence 30, Appl
10	815.5	48.2	337	2	US-09-254-227A-1	Sequence 1, Appli
11	510	30.2	321	2	US-10-314-048A-10	Sequence 10, Appl
12	415.5	24.6	325	6	5320941-2	Patent No. 5320941
13	386.5	22.9	282	1	US-08-118-270-52	Sequence 52, Appl
14	386.5	22.9	282	4	PCT-US93-08528-52	Sequence 52, Appl
15	340.5	20.1	298	1	US-08-118-270-76	Sequence 76, Appl
16	340.5	20.1	298	4	PCT-US93-08528-76	Sequence 76, Appl
17	250.5	14.8	395	2	US-08-981-825-6	Sequence 6, Appli
18	250.5	14.8	395	2	US-09-480-784-6	Sequence 6, Appli
19	236.5	14.0	354	1	US-07-759-568-2	Sequence 2, Appli
20	222.5	13.2	369	1	US-07-816-283-8	Sequence 8, Appli
21	222.5	13.2	369	1	US-08-417-103-8	Sequence 8, Appli
22	222.5	13.2	369	1	US-08-411-859-3	Sequence 3, Appli
23	222.5	13.2	369	2	US-08-120-601B-9	Sequence 9, Appli
24	222.5	13.2	369	2	US-08-387-707-9	Sequence 9, Appli
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27	215.5	12.7	355	1	US-08-450-393A-8	Sequence 8, Appli
28	215.5	12.7	355	1	US-08-390-000A-5	Sequence 5, Appli
29	215.5	12.7	355	2	US-08-446-669-8	Sequence 8, Appli
30	215.5	12.7	355	2	US-09-625-573-8	Sequence 8, Appli
31	215.5	12.7	355	4	PCT-US95-00476-8	Sequence 8, Appli
32	215.5	12.7	360	1	US-08-202-056-7	Sequence 7, Appli
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34	214	12.7	351	2	US-09-944-807-2	Sequence 2, Appli
35	214	12.7	351	2	US-09-826-509-501	Sequence 501, App
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38	205	12.1	259	2	US-09-261-599B-3	Sequence 3, Appli
39	205	12.1	259	2	US-09-456-455A-3	Sequence 3, Appli
40	205	12.1	380	2	US-08-676-351-5	Sequence 5, Appli
41	204	12.1	353	2	US-09-576-160B-6	Sequence 6, Appli
42	203.5	12.0	369	1	US-07-816-283-6	Sequence 6, Appli
43	203.5	12.0	369	1	US-08-417-103-6	Sequence 6, Appli
44	203.5	12.0	369	1	US-08-417-103-16	Sequence 16, Appl
45	202.5	12.0	355	2	US-09-170-496D-164	Sequence 164, App

ALIGNMENTS

RESULT 1
US-09-254-227A-3
; Sequence 3, Application US/09254227A
; Patent No. 6696257
; GENERAL INFORMATION:
; APPLICANT: Ahmad, Sultan
; APPLICANT: Banville, Denis
; APPLICANT: Fortin, Yves
; APPLICANT: Lembo, Paola
; APPLICANT: O'Donnell, Dajan
; APPLICANT: Shi-Hsiang, Shen
; TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human
; FILE REFERENCE: 81823/268117
; CURRENT APPLICATION NUMBER: US/09/254,227A
; CURRENT FILING DATE: 1999-03-03
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3
; LENGTH: 322
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-254-227A-3

Query Match 100.0%; Score 1691; DB 2; Length 322;
Best Local Similarity 100.0%; Pred. No. 8.4e-138;
Matches 322; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db        301 VDEGGGWLPQETLELSGSKLEQ 322
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RESULT 2
US-10-401-397A-2
; Sequence 2, Application US/10401397A
; Patent No. 6864239
; GENERAL INFORMATION:
;  APPLICANT: Peri, Krishna G.
;  APPLICANT:  Moffett, Serge
;  APPLICANT:  Abran, Daniel
;  TITLE OF INVENTION: METHODS AND COMPOUNDS FOR PREVENTION AND TREATMENT OF ELEVATED
;  TITLE OF INVENTION:  INTRAOCULAR PRESSURE AND RELATED CONDITIONS
;  FILE REFERENCE: 4518/1M674US1
;  CURRENT APPLICATION NUMBER: US/10/401,397A
;  CURRENT FILING DATE:  2003-03-27
;  PRIOR APPLICATION NUMBER: US 60/367,513
;  PRIOR FILING DATE: 2002-03-27
;  NUMBER OF SEQ ID NOS: 8
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 322
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-401-397A-2

  Query Match             96.8%;  Score 1637;  DB 2;  Length 322;
  Best Local Similarity   96.9%;  Pred. No. 3.7e-133;
  Matches  312;  Conservative    6;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
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              ||||||||||||||||||||||||||||||||||||||||||||||||:||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 3
US-09-254-227A-5
; Sequence 5, Application US/09254227A
; Patent No. 6696257
; GENERAL INFORMATION:
;  APPLICANT:  Ahmad, Sultan
;  APPLICANT:  Banville, Denis
;  APPLICANT:  Fortin, Yves
;  APPLICANT:  Lembo, Paola
;  APPLICANT:  O'Donnell, Dajan
;  APPLICANT:  Shi-Hsiang, Shen
;  TITLE OF INVENTION:   G Protein-Coupled Receptors from the Rat and Human
;  FILE REFERENCE:   81823/268117
;  CURRENT APPLICATION NUMBER: US/09/254,227A
;  CURRENT FILING DATE:  1999-03-03
;  NUMBER OF SEQ ID NOS:   22
;  SOFTWARE:   PatentIn version 3.0
; SEQ ID NO 5
;   LENGTH: 322
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-227A-5

  Query Match             92.9%;  Score 1571;  DB 2;  Length 322;
  Best Local Similarity   94.1%;  Pred. No. 1.8e-127;
  Matches  302;  Conservative    8;  Mismatches   11;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              ||||:|||||:||||||||||||| ||||||||||:|||||||||||||||||||||||
Db          1 MDPTVPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:|||||||| ||| |||| ||||||||||||||||||||:||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINISHPISKILSPVMTFPYFIGLSMLNAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWAPSLLRSILEWMFCDFLFSGADSVRCETSDFIT 180
              |||||||||||||||||||||||||||||||||||||||||||||||||:|| ||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWAPSLLRSILEWMFCDFLFSGADSVRCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||| ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLRVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||:||||| |||: ||||||| ||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFMGSFRQLQNRKTLKLVLQRDLQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLE 321
              ||||| |||||||||||||||
Db        301 VDEGGWWLPQETLELSGSKLE 321


RESULT 4
US-09-254-227A-7
; Sequence 7, Application US/09254227A
; Patent No. 6696257
; GENERAL INFORMATION:
;  APPLICANT:  Ahmad, Sultan
;  APPLICANT:  Banville, Denis
;  APPLICANT:  Fortin, Yves
;  APPLICANT:  Lembo, Paola
;  APPLICANT:  O'Donnell, Dajan
;  APPLICANT:  Shi-Hsiang, Shen
;  TITLE OF INVENTION:   G Protein-Coupled Receptors from the Rat and Human
;  FILE REFERENCE:   81823/268117
;  CURRENT APPLICATION NUMBER: US/09/254,227A
;  CURRENT FILING DATE:  1999-03-03
;  NUMBER OF SEQ ID NOS:   22
;  SOFTWARE:   PatentIn version 3.0
; SEQ ID NO 7
;   LENGTH: 322
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-227A-7

  Query Match             82.5%;  Score 1395;  DB 2;  Length 322;
  Best Local Similarity   82.3%;  Pred. No. 2.5e-112;
  Matches  265;  Conservative   24;  Mismatches   33;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              ||||:  | |:|||||| ||| || |||| | ||||:||| ||||||||||||||||||
Db          1 MDPTVSTLDTELTPINGTEETLCYKQTLSLTVLTCIVSLVGLTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||| ||:|||||| :|:| |  |:| | ||||| ||| | || ||: |||:||:|
Db         61 FSIYILNLAAADFLFLSGRLIYSLLSFISIPHTISKILYPVMMFSYFAGLNFLSAVSTDR 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              |||:|||||| | || :||:|:|||||||||||||||| | |||||||:| ||:|||||||
Db        121 CLSVLWPIWYRCHRPTHLSAVVCVLLWALSLLRSILEWMLCGFLFSGADSAWCQTSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
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              :|||:|||||||||||||||:||||||||:||||||||||||||||||||||||||: ||
Db        181 VAWLIFLCVVLCGSSLVLLIRILCGSRKIPLTRLYVTILLTVLVFLLCGLPFGIQFFLFL 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||:| :|||||||||||||||||||||||||||||| ||||||||||||||||||||||
Db        241 WIHVDREVLFCHVHLVSIFLSALNSSANPIIYFFVGSLRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 5
US-09-254-227A-9
; Sequence 9, Application US/09254227A
; Patent No. 6696257
; GENERAL INFORMATION:
;  APPLICANT:  Ahmad, Sultan
;  APPLICANT:  Banville, Denis
;  APPLICANT:  Fortin, Yves
;  APPLICANT:  Lembo, Paola
;  APPLICANT:  O'Donnell, Dajan
;  APPLICANT:  Shi-Hsiang, Shen
;  TITLE OF INVENTION:  G Protein-Coupled Receptors from the Rat and Human
;  FILE REFERENCE:  81823/268117
;  CURRENT APPLICATION NUMBER: US/09/254,227A
;  CURRENT FILING DATE:  1999-03-03
;  NUMBER OF SEQ ID NOS:  22
;  SOFTWARE:  PatentIn version 3.0
; SEQ ID NO 9
;  LENGTH: 322
;  TYPE: PRT
;  ORGANISM: Homo sapiens
US-09-254-227A-9

  Query Match             81.7%;  Score 1381;  DB 2;  Length 322;
  Best Local Similarity   82.3%;  Pred. No. 4e-111;
  Matches  265;  Conservative   22;  Mismatches   35;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              ||||:  | |:|||||| ||| || |||| | ||||:||| ||||||||||||||||||
Db          1 MDPTVSTLDTELTPINGTEETLCYKQTLSLTVLTCIVSLVGLTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||| ||:|||||| :|:| |  |:| | ||||| ||| | || ||| |||:||||
Db         61 FSIYILNLAAADFLFLSGRLIYSLLSFISIPHTISKILYPVMMFSYFAGLSFLSAVSTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              |||:|||||| | || :||:|:|||||||||||||| | ||||||:| ||:||||||
Db        121 CLSVLWPIWYRCHRPTHLSAVVCVLLWALSLLRSILEWMLCGFLFSGADSAWCQTSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              :|||:|||||||||||||:||||||||:|||||||||||||||||||||||||||||: ||
Db        181 VAWLIFLCVVLCGSSLVLLIRILCGSRKIPLTRLYVTILLTVLVFLLCGLPFGIQFFLFL 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||:| :|||||||||||||||||||||||||||||||||||||||||||||||||||||  |
Db        241 WIHVDREVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDASE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||| |||||||||||:|||
Db        301 VDEGGGQLPQETLELSGSRLEQ 322


RESULT 6
US-10-314-048A-20
; Sequence 20, Application US/10314048A
; Patent No. 6902902
; GENERAL INFORMATION:
;  APPLICANT: Unett, David J.
;  APPLICANT:  Chen, Ruoping
;  APPLICANT:  Richman, Jeremy
;  APPLICANT:  Connolly, Daniel
;  APPLICANT:  Dang, Huong T.
;  APPLICANT:  Choi, Bryan
;  APPLICANT:  Leonard, James
;  APPLICANT:  Hakak, Yaron
;  APPLICANT:  Liaw, Chen
;  APPLICANT:  Lowitz, Kevin P.
;  APPLICANT:  Behan, Dominic P.
;  APPLICANT:  Chalmers, Derek T.
;  APPLICANT:  Lerner, Michael
;  TITLE OF INVENTION: Human G Protein-Coupled Receptors and Modulators Thereof
;  TITLE OF INVENTION:  for the Treatment of Metabolic-Related Disorders
;  FILE REFERENCE: 22.US6.CIP
;  CURRENT APPLICATION NUMBER: US/10/314,048A
;  CURRENT FILING DATE:  2002-12-06
;  PRIOR APPLICATION NUMBER: 10/096,511
;  PRIOR FILING DATE: 2002-03-12
;  PRIOR APPLICATION NUMBER: 09/995,543
;  PRIOR FILING DATE: 2001-11-27
;  PRIOR APPLICATION NUMBER: 60/399,917
;  PRIOR FILING DATE: 2002-07-29
;  PRIOR APPLICATION NUMBER: 60/404,761
;  PRIOR FILING DATE: 2002-08-19
;  PRIOR APPLICATION NUMBER: 60/410,747
;  PRIOR FILING DATE: 2002-09-13
;  NUMBER OF SEQ ID NOS: 161
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 20
;  LENGTH: 322
;  TYPE: PRT
;  ORGANISM: Homo sapiens
US-10-314-048A-20

  Query Match             81.2%;  Score 1373;  DB 2;  Length 322;
  Best Local Similarity   82.0%;  Pred. No. 1.9e-110;
  Matches  264;  Conservative   22;  Mismatches   36;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              |||||  | |:|||||| ||| || |||| | ||||:||| ||||||||||||||||||
Db          1 MDPTISTLDTELTPINGTEETLCYKQTLSLTVLTCIVSLVGLTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||| ||:|||||| :|:| |  |:| | ||||| ||| | || ||| |||:||||
Db         61 FSIYILNLAAADFLFLSGRLIYSLLSFISIPHTISKILYPVMMFSYFAGLSFLSAVSTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              |||:|||||| | || :||:|:|||||||||||||| | ||||||:| ||:||||||
Db        121 CLSVLWPIWYRCHRPTHLSAVVCVLLWALSLLRSILEWMLCGFLFSGADSAWCQTSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              :|||:|||||||||||||:||||||||:|||||||||||||||||||||||||||||: ||
Db        181 VAWLIFLCVVLCGSSLVLLIRILCGSRKIPLTRLYVTILLTVLVFLLCGLPFGIQFFLFL 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||:| :|||||||||||||||||||||||||||||||||||||||||||||||||||||  |
Db        241 WIHVDREVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDASE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||| ||:| ||||||:|||
Db        301 VDEGGGQLPEEILELSGSRLEQ 322


RESULT 7
US-09-254-227A-13
; Sequence 13, Application US/09254227A
; Patent No. 6696257
; GENERAL INFORMATION:
;  APPLICANT:  Ahmad, Sultan
;  APPLICANT:  Banville, Denis
;  APPLICANT:  Fortin, Yves
;  APPLICANT:  Lembo, Paola
;  APPLICANT:  O'Donnell, Dajan
;  APPLICANT:  Shi-Hsiang, Shen
;  TITLE OF INVENTION:  G Protein-Coupled Receptors from the Rat and Human
```

```
;  FILE REFERENCE:   81823/268117
;  CURRENT APPLICATION NUMBER: US/09/254,227A
;  CURRENT FILING DATE:  1999-03-03
;  NUMBER OF SEQ ID NOS:   22
;  SOFTWARE:   PatentIn version 3.0
; SEQ ID NO 13
;   LENGTH: 322
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-227A-13

  Query Match             80.7%;  Score 1365;  DB 2;  Length 322;
  Best Local Similarity   83.1%;  Pred. No. 9.4e-110;
  Matches  266;  Conservative   20;  Mismatches   34;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              ||||:|| |||||||||||||||||||||| |||||||| |||||||||||| ||||||
Db          1 MDPTVPVFGTKLTPINGREETPCYNQTLSFTVLTCIISLVGLTGNAVVLWLLGYRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              |||||||| ||:|||||  || ||| |||| | | |||  ||||||| ||||||||||||
Db         61 VSIYILNLAAADFLFLSFQIIRSPLRLINISHLIRKILVSVMTFPYFTGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              |||:|||||| |||| :||:|:||||| |||| |:||| |||||||||:| ||||||||
Db        121 CLSVLWPIWYRCRRPTHLSAVVCVLLWGLSLLFSMLEWRFCDFLFSGADSSWCETSDFIP 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              : ||:||||||| ||||||||||||||||||||||||||||||||||||||||||  ||
Db        181 VVWLIFLCVVLCVSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGILGALIY 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              |:||: :||:|||:|| : ||:|||||||||||||||||||||||||||||||||||| ||
Db        241 RMHLNLEVLYCHVYLVCMSLSSLNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDKPE 300

Qy        301 VDEGGGWLPQETLELSGSKL 320
              ||:| | ||:|:||||||||
Db        301 VDKGEGQLPEESLELSGSKL 320


RESULT 8
US-09-254-227A-11
; Sequence 11, Application US/09254227A
; Patent No. 6696257
; GENERAL INFORMATION:
;  APPLICANT:  Ahmad, Sultan
;  APPLICANT:  Banville, Denis
;  APPLICANT:  Fortin, Yves
;  APPLICANT:  Lembo, Paola
;  APPLICANT:  O'Donnell, Dajan
;  APPLICANT:  Shi-Hsiang, Shen
;  TITLE OF INVENTION:   G Protein-Coupled Receptors from the Rat and Human
;  FILE REFERENCE:   81823/268117
;  CURRENT APPLICATION NUMBER: US/09/254,227A
;  CURRENT FILING DATE:  1999-03-03
;  NUMBER OF SEQ ID NOS:   22
;  SOFTWARE:   PatentIn version 3.0
; SEQ ID NO 11
;   LENGTH: 322
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-227A-11

  Query Match             80.2%;  Score 1356;  DB 2;  Length 322;
  Best Local Similarity   82.5%;  Pred. No. 5.6e-109;
  Matches  264;  Conservative   21;  Mismatches   35;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              ||||:|||||||||||||||| |||||| |||||||| ||||||||||||||||||||
Db          1 MDPTVPVLGTKLTPINGREETPCYKQTLSFTVLTCIISLVGLTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              |||||||| ||:|||||  ||  || |||| | | |||  ||||||| ||||||||||||

Db         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              |||:|||||| |||| :||:|:||||| |||| |:||| |||||||||:| ||||||||
Db        121 CLSVLWPIWYRCRRPTHLSAVVCVLLWAGLLLFSMLEWRFCDFLFSGADSSWCETSDFIP 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              :|||:||||||| ||||||||||||||||||||||||||||||||||||||||||  ||
Db        181 VAWLIFLCVVLCVSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGILGALIY 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              |:||: :||:|||:|| : ||:|||||||||||||||||||||||||||||||||||| ||
Db        241 RMHLNLEVLYCHVYLVCMSLSSLNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDKPE 300

Qy        301 VDEGGGWLPQETLELSGSKL 320
              ||:| | ||:|:||||| :|
Db        301 VDKGEGQLPEESLELSGRRL 320


RESULT 9
US-10-314-048A-30
; Sequence 30, Application US/10314048A
; Patent No. 6902902
; GENERAL INFORMATION:
;  APPLICANT: Unett, David J.
;  APPLICANT:  Chen, Ruoping
;  APPLICANT:  Richman, Jeremy
;  APPLICANT:  Connolly, Daniel
;  APPLICANT:  Dang, Huong T.
;  APPLICANT:  Choi, Bryan
;  APPLICANT:  Leonard, James
;  APPLICANT:  Hakak, Yaron
;  APPLICANT:  Liaw, Chen
;  APPLICANT:  Lowitz, Kevin P.
;  APPLICANT:  Behan, Dominic P.
;  APPLICANT:  Chalmers, Derek T.
;  APPLICANT:  Lerner, Michael
;  TITLE OF INVENTION: Human G Protein-Coupled Receptors and Modulators Thereof
;  TITLE OF INVENTION:  for the Treatment of Metabolic-Related Disorders
;  FILE REFERENCE: 22.US6.CIP
;  CURRENT APPLICATION NUMBER: US/10/314,048A
;  CURRENT FILING DATE:  2002-12-06
;  PRIOR APPLICATION NUMBER: 10/096,511
;  PRIOR FILING DATE: 2002-03-12
;  PRIOR APPLICATION NUMBER: 09/995,543
;  PRIOR FILING DATE: 2001-11-27
;  PRIOR APPLICATION NUMBER: 60/399,917
;  PRIOR FILING DATE: 2002-07-29
;  PRIOR APPLICATION NUMBER: 60/404,761
;  PRIOR FILING DATE: 2002-08-19
;  PRIOR APPLICATION NUMBER: 60/410,747
;  PRIOR FILING DATE: 2002-09-13
;  NUMBER OF SEQ ID NOS: 161
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 30
;   LENGTH: 330
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-314-048A-30

  Query Match             57.9%;  Score 978.5;  DB 2;  Length 330;
  Best Local Similarity   62.3%;  Pred. No. 1.7e-76;
  Matches  205;  Conservative   29;  Mismatches   86;  Indels    9;  Gaps    3;

Qy          1 MDPTIPVLGTKLTPINGREET---PCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMR 57
              |||| |  ||: | :|| ::     |  :||    |   |:|| | ||  |||||| |||
Db          1 MDPTTPAWGTESTTVNGNDQALLLLCGKETLIPVFLILFIALVGLVGNGFVLWLLGFRMR 60

Qy         58 RNAVSIYILNLVAANFLFLSGHIIFSPLPLINIRHPIS----KILSPVMTFPYFIGLSML 113
              ||| |:|:|:|  |:|||    ||   : | |    ||       : |||  |  |||||
Db         61 RNAFSVYVLSLAGADFLFLCFQIINCLVYLSNFFCSISINFPSFFTTVMTCAYLAGLSML 120

Qy        114 SAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWC 173
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                | :|||||||:|||||| |||||:||:|:|||||||||| ||||  || ||||  :| ||
Db        121 STVSTERCLSVLWPIWYRCRRPRHLSAVVCVLLWALSLLLSILEGKFCGFLFSDGDSGWC 180

Qy        174 ETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFG 233
              :| |||| |||:|| :|||||| |||||||||| :||||||:|||||||||||||||||
Db        181 QTFDFITAAWLIFLFMVLCGSSLALLVRILCGSRGLPLTRLYLTILLTVLVFLLCGLPFG 240

Qy        234 IQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQN--LKLVL 291
              ||| |   |  |  |||||:| ||: ||:|||||||||||||||::   |   ||| |
Db        241 IQWFLILWIWKDSDVLFCHIHPVSVVLSSLNSSANPIIYFFVGSFRKQWRLQQPILKLAL 300

Qy        292 QRALQDTPEVDEGGGWLPQETLELSGSKL 320
              ||||||  |||   |   | | |:| | |
Db        301 QRALQDIAEVDHSEGCFRQGTPEMSRSSL 329


RESULT 10
US-09-254-227A-1
; Sequence 1, Application US/09254227A
; Patent No. 6696257
; GENERAL INFORMATION:
;  APPLICANT:  Ahmad, Sultan
;  APPLICANT:  Banville, Denis
;  APPLICANT:  Fortin, Yves
;  APPLICANT:  Lembo, Paola
;  APPLICANT:  O'Donnell, Dajan
;  APPLICANT:  Shi-Hsiang, Shen
;  TITLE OF INVENTION:  G Protein-Coupled Receptors from the Rat and Human
;  FILE REFERENCE:  81823/268117
;  CURRENT APPLICATION NUMBER: US/09/254,227A
;  CURRENT FILING DATE:  1999-03-03
;  NUMBER OF SEQ ID NOS:  22
;  SOFTWARE:  PatentIn version 3.0
; SEQ ID NO 1
;   LENGTH: 337
;   TYPE: PRT
;   ORGANISM: rat
US-09-254-227A-1

  Query Match            48.2%;  Score 815.5;  DB 2;  Length 337;
  Best Local Similarity  53.4%;  Pred. No. 1.9e-62;
  Matches  173;  Conservative   50;  Mismatches   88;  Indels   13;  Gaps    7;

Qy          1 MDPTIPVLGTKLTPINGREETPCYN-QTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRN 59
              |||||  | |: | :|      |    ||||  |  ||:|: | || :|||||| ||||
Db         15 MDPTISSLSTESTTLNKTGHPSCRPILTLSF--LVPIITLLGLAGNTIVLWLLGFRMRRK 72

Qy         60 AVSIYILNLVAANFLFLSGHIIFSPLPLINI----RHPISK-ILSPVMTFPYFIGLSMLS 114
              |:|:|:|||  |:  ||  | | | : ::|     | :|| ||  |   ||  |||:||
Db         73 AISVYVLNLSLADSFFLCCHFIDSLMRIMNFYGIYAHKLSKEILGNVAFIPYISGLSILS 132

Qy        115 AISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCE 174
              |||||||||:||||||| ||| :|:::|||:| || |  ||:| |  ||    : :| :
Db        133 AISTERCLSVLWPIWYHCHRPRNMSAIICVLIWVLSFLMGILDWFFSGFLGETHHHLW-K 191

Qy        175 TSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGI 234
                |||  |:|:|| ::| |||| |||||||||: ||:|||||| |||:|:|:|||| |:
Db        192 NVDFIVTAFLIFLFMLLFGSSLALLVRILCGSRRKPLSRLYVTISLTVMVYLICGLPLGL 251

Qy        235 QWAL--FSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQ 292
                 |  :  ||| :   |||:: |:: || :|||||||||| ||||| |:  ::||:||:
Db        252 YLFLLYWFGIHLHYP--FCHIYQVTVLLSCVNSSANPIIYFLVGSFRHRKKHRSLKMVLK 309

Qy        293 RALQDTPEVDEGGGWLPQETLELS 316
              |||::||| ||      |:  |:|
Db        310 RALEETPEEDEYTDSHVQKPTEIS 333


RESULT 11
US-10-314-048A-10
; Sequence 10, Application US/10314048A
; Patent No. 6902902
; GENERAL INFORMATION:
;  APPLICANT: Unett, David J.
;  APPLICANT:  Chen, Ruoping
;  APPLICANT:  Richman, Jeremy
;  APPLICANT:  Connolly, Daniel
;  APPLICANT:  Dang, Huong T.
;  APPLICANT:  Choi, Bryan
;  APPLICANT:  Leonard, James
;  APPLICANT:  Hakak, Yaron
;  APPLICANT:  Liaw, Chen
;  APPLICANT:  Lowitz, Kevin P.
;  APPLICANT:  Behan, Dominic P.
;  APPLICANT:  Chalmers, Derek T.
;  APPLICANT:  Lerner, Michael
;  TITLE OF INVENTION: Human G Protein-Coupled Receptors and Modulators Thereof
;  TITLE OF INVENTION:  for the Treatment of Metabolic-Related Disorders
;  FILE REFERENCE: 22.US6.CIP
;  CURRENT APPLICATION NUMBER: US/10/314,048A
;  CURRENT FILING DATE:  2002-12-06
;  PRIOR APPLICATION NUMBER: 10/096,511
;  PRIOR FILING DATE: 2002-03-12
;  PRIOR APPLICATION NUMBER: 09/995,543
;  PRIOR FILING DATE: 2001-11-27
;  PRIOR APPLICATION NUMBER: 60/399,917
;  PRIOR FILING DATE: 2002-07-29
;  PRIOR APPLICATION NUMBER: 60/404,761
;  PRIOR FILING DATE: 2002-08-19
;  PRIOR APPLICATION NUMBER: 60/410,747
;  PRIOR FILING DATE: 2002-09-13
;  NUMBER OF SEQ ID NOS: 161
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 10
;   LENGTH: 321
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-314-048A-10

  Query Match            30.2%;  Score 510;  DB 2;  Length 321;
  Best Local Similarity  40.3%;  Pred. No. 3.4e-36;
  Matches  127;  Conservative   57;  Mismatches  115;  Indels   16;  Gaps    9;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              |: |:   ||  : :|    :  :   |  : |      |  : ||::|:|||| || ||
Db          1 MNQTLNSSGTVESALNYSRGSTVHTAYLVLSSLAMFTCLCGMAGNSMVIWLLGFRMHRNP 60

Qy         61 VSIYILNLVAANFLFL---SGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAIS 117
                |||||| ||: |||   :  :     ||:|    : :::  :| | | :|||:|:|||
Db         61 FCIYILNLAAADLLFLFSMASTLSLETQPLVNTTDKVHELMKRLMYFAYTVGLSLLTAIS 120

Qy        118 TERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSD 177
              |:||||:|:|||: | |||:||: :| ||| | || : |   ||   |   |   |   |
Db        121 TQRCLSVLFPIWFKCHRPRHLSAWVCGLLWTLCLLMNGLTSSFCS-KFLKFNEDRCFRVD 179

Qy        178 FITIAWLV-FLCVVLCGSSLVLLVRILCGS---RKMPLTRLYVTILLTVLVFLLCGLPFG 233
                :  | ::  |  |:  ||| | | :   |   |: | |||:| :| :|||||:| ||
Db        180 MVQAALIMGVLTPVMTLSSLTLFVWVRRSSQQWRRQP-TRLFVVVLASVLVFLICSLPLS 238

Qy        234 IQWALFSRIHL--DWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFR-QRQNRQNLKLV 290
              | | :   : |  : :||   :  :|   |:::|||||:||| ||| |   |   ::|  |
Db        239 IYWFVLYWLSLPPEMQVLCFSLSRLS---SSVSSSANPVIYFLVGSRRSHRLPTRSLGTV 295

Qy        291 LQRALQDTPEVDEGG 305
              ||:||:: ||: |||
Db        296 LQQALREEPEL-EGG 309


RESULT 12
5320941-2
;Patent No. 5320941
;    APPLICANT: Young, Dallan;Wigler, Michael H.;Fasano
;Ottavio
;    TITLE OF INVENTION: DNA SEQUENCES ENCODING MAS ONHCOGENE,
;POLYPETIDES ENCODED THEREFROM AND DIAGNOSTIC AND OTHER METHODS
;BASED THEREFROM
```

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;    NUMBER OF SEQUENCES: 2
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/06/872,087
;      FILING DATE: 06-JUN-1986
;SEQ ID NO:2:
;      LENGTH: 325
5320941-2

  Query Match             24.6%;  Score 415.5;  DB 6;  Length 325;
  Best Local Similarity   34.1%;  Pred. No. 4.7e-28;
  Matches  105;  Conservative   64;  Mismatches  112;  Indels   27;  Gaps    7;

Qy          2 DPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNAV 61
              :||    |   :  |   : |  :  :        || |    | ::|| |  |||||
Db         13 EPTNISTGRNASVGNAHRQIPIVHWVI------MSISPVGFVENGILLWFLCFRMRRNPF 66

Qy         62 SIYILNLVAANFLFLSGHIIFS-----PLPLINIRHPISKILSPVMTFPYFIGLSMLSAI 116
              ::|| :|  |:   |    | |        | :  :     ||    | |  || :|:||
Db         67 TVYITHLSIADISLLFCIFILSIDYALDYELSSGHYYTIVTLSVTFLFGYNTGLYLLTAI 126

Qy        117 STERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETS 176
              | |||||:|:|||| | ||:| |:::| |||||| | : :|:: |      ::|     :
Db        127 SVERCLSVLYPIWYRCHRPKYQSALVCALLWALSCLVTTMEYVMCIHTEEESDS----PN 182

Qy        177 D------FITI-AWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCG 229
              |      || | ::||| ::|  || :|:|:|   :     ::||: |::|:::||:
Db        183 DCPAVIIFIAILSFLVFTGLMLV-SSTILVVKIPKNTWASHSSKLYIVIMVTIIIFLI-- 239

Qy        230 LPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKL 289
                | ::  |   :: ::   | ::| :|:  | :|||||  |||||| :::: :|:||:
Db        240 --FAMRMRLLYLLYYEYWSTFGNLHDISLLFSTINSSANNFIYFFVGSSKKKRFKQSLKV 297

Qy        290 VLQRALQD 297
              |  || :|
Db        298 VTTRAFKD 305


RESULT 13
US-08-118-270-52
; Sequence 52, Application US/08118270
; Patent No. 5508384
;  GENERAL INFORMATION:
;    APPLICANT:  Murphy, Randall B.
;    APPLICANT:  Schuster, David I.
;    TITLE OF INVENTION:  POLYPEPTIDES OF G-COUPLED PROTEIN
;    TITLE OF INVENTION:  RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF
;    NUMBER OF SEQUENCES:  348
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BROWDY AND NEIMARK
;      STREET:  419 Seventh Street, N.W., Suite 300
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20004
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/118,270
;      FILING DATE:  09-SEP-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/943,236
;      FILING DATE:  10-SEP-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Townsend, Kevin G.
;      REGISTRATION NUMBER:  34,033
;      REFERENCE/DOCKET NUMBER:  MURPHY=2A
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-628-5197
;      TELEFAX:  202-737-3528
;      TELEX:  248633
;  INFORMATION FOR SEQ ID NO:  52:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  282 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-118-270-52

  Query Match             22.9%;  Score 386.5;  DB 1;  Length 282;
  Best Local Similarity   34.4%;  Pred. No. 1.3e-25;
  Matches   96;  Conservative   54;  Mismatches   86;  Indels   43;  Gaps    7;

Qy         37 ISLVALTGNAVVLW----------------LLGCRMRRNAVSIYILNL-VAANFLFLSG 78
              || |    | ::||                || |        |:||::  | ::   ||
Db          9 ISPVGFVENGILLWFLCFFTVYTHLSIADISLLFC--------IFILSIDYALDYELSSG 60

Qy         79 HIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYL 138
              |             :     ||    | |  || :|:||| |||||:|:|||| | ||:|
Db         61 H------------YYTIVTLSVTFLFGYNTGLYLLTAISVERCLSVLYPIWYRCHRPKYQ 108

Qy        139 SSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFITIAWLVFLCVVLCGSSLVL 198
              |:::| |||||| | : : :: |   |  ::|     :  | || | ||      || :|
Db        109 SALVCALLWALSCLVTTM-YVMCIDRFEESHSRNDCRAVIIFIAILSFLVFTPSVSSTIL 167

Qy        199 LVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSI 258
              :|:|   :     ::||: |::|:::||:  :|  : : |:      |   | ::| :|:
Db        168 VVKIRKNTWASHSSKLYIVIMVTIIIFLIFAMPMRLLYLLYYEY---WST-FGNLHHISL 223

Qy        259 FLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQD 297
                | :|||||| ||||||| :::: :::||:|| || :|
Db        224 LFSTINSSANPFIYFFVGSSKKKRFKESLKVVLTRAFKD 262


RESULT 14
PCT-US93-08528-52
; Sequence 52, Application PC/TUS9308528
;  GENERAL INFORMATION:
;    APPLICANT:  New York University
;    TITLE OF INVENTION:  POLYPEPTIDES OF G-COUPLED PROTEIN
;    TITLE OF INVENTION:  RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF
;    NUMBER OF SEQUENCES:  348
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BROWDY AND NEIMARK
;      STREET:  419 Seventh Street, N.W., Suite 300
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20004
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/08528
;      FILING DATE:  09-SEP-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/943,236
;      FILING DATE:  10-SEP-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Townsend, Kevin G.
;      REGISTRATION NUMBER:  34,033
;      REFERENCE/DOCKET NUMBER:  MURPHY=2 PCT
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-628-5197
;      TELEFAX:  202-737-3528
;      TELEX:  248633
;  INFORMATION FOR SEQ ID NO:  52:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  282 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
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;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
PCT-US93-08528-52

  Query Match             22.9%;  Score 386.5;  DB 4;  Length 282;
  Best Local Similarity   34.4%;  Pred. No. 1.3e-25;
  Matches   96;  Conservative   54;  Mismatches   86;  Indels   43;  Gaps    7;

Qy         37 ISLVALTGNAVVLW-----------------LLGCRMRRNAVSIYILNL-VAANFLFLSG 78
              || |     | ::||                  || |         |:||::  | ::   ||
Db          9 ISPVGFVENGILLWFLCFFTVYTHLSIADISLLFC--------IFILSIDYALDYELSSG 60

Qy         79 HIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYL 138
              |              :     ||    | |  || :|:||| |||||:|:|||| | ||:|
Db         61 H------------YYTIVTLSVTFLFGYNTGLYLLTAISVERCLSVLYPIWYRCHRPKYQ 108

Qy        139 SSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFITIAWLVFLCVVLCGSSLVL 198
              |:::| |||||| | : : :: |   |  ::|     :  | || | ||       || :|
Db        109 SALVCALLWALSCLVTTM-YVMCIDRFEESHSRNDCRAVIIFIAILSFLVFTPSVSSTIL 167

Qy        199 LVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSI 258
              :|:|   :     ::||: |::|:::||:  :|  : : |:       |   | ::| :|:
Db        168 VVKIRKNTWASHSSKLYIVIMVTIIIFLIFAMPMRLLYLLYYEY---WST-FGNLHHISL 223

Qy        259 FLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQD 297
              | :|||||| ||||||| :::: :::||:|| || :|
Db        224 LFSTINSSANPFIYFFVGSSKKKRFKESLKVVLTRAFKD 262


RESULT 15
US-08-118-270-76
; Sequence 76, Application US/08118270
; Patent No. 5508384
;  GENERAL INFORMATION:
;    APPLICANT:  Murphy, Randall B.
;    APPLICANT:  Schuster, David I.
;    TITLE OF INVENTION:  POLYPEPTIDES OF G-COUPLED PROTEIN
;    TITLE OF INVENTION:  RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF
;    NUMBER OF SEQUENCES:  348
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BROWDY AND NEIMARK
;      STREET:  419 Seventh Street, N.W., Suite 300
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20004
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/118,270
;      FILING DATE:  09-SEP-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/943,236
;      FILING DATE:  10-SEP-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Townsend, Kevin G.
;      REGISTRATION NUMBER:  34,033
;      REFERENCE/DOCKET NUMBER:  MURPHY=2A
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-628-5197
;      TELEFAX:  202-737-3528
;      TELEX:  248633
;  INFORMATION FOR SEQ ID NO:  76:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  298 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-118-270-76

  Query Match             20.1%;  Score 340.5;  DB 1;  Length 298;
  Best Local Similarity   30.6%;  Pred. No. 1.2e-21;
  Matches   91;  Conservative   61;  Mismatches  114;  Indels   31;  Gaps   10;

Qy         36 IISLVALTGNAVVLWLLGCRMRRNAVSIYI--LNLVAANFLFLSGHIIFSPLPLINIRHP 93
              ::  |  | || :|||  |  ::|   ||||  |:: :|: ::|    :   : |:|:
Db          8 LLCLCGLVGNGLVLWFFGFSIKRTPFSIYIYFLHIASADGIYLFSKAV---IALLNMGTF 64

Qy         94 ISKI------LSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLW 147
              :        :| ::   :| |:|:| ||| |||:|:::|:||  |||: ||: :| |||
Db         65 LGSFPDYVRRVSRIVGLTFFAGVSLLPAISIERCVSVIFPMWYWRRRPKRLSAGVCALLW 124

Qy        148 ALSLLRSILEWMFCDFLFSGANSVWCETSDFITIAWLVF-----LCVVLCGSSLVLLVRI 202
              || | : :   ||  |   |:   |   |   :  |:|     : |: |    : |: :
Db        125 LLSFLVTSIHNYFC-LLGHEASGTACLNMDISLLGILLFFLFCPIMVLPC----IALLHV 179

Qy        203 LCGSRKMPLT-RLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDW--KVLFCHVHLVSIF 259
              | :|:   : :|   :|  | |||:  :  || | ||       |  ::       |
Db        180 ECRARRRQRSAKLNHVVLAIVSVFLVSSIYLGIDWFLF------WVFQIPAPFPEYVRDL 233

Qy        260 LSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGGWLPQE-TLEL 315
              :|||| ||:||  |  : ::  : |::| ||||:|  |  :     |   |:|:
Db        234 CICINSSAKPIVYFIAGRDKSQRLWEPLRVVFQRALRDGAEPGDAASSTPNTVTMEM 290


Search completed: February  3, 2006, 20:33:05
Job time : 50 secs
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GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 3, 2006, 20:43:35 ; Search time 175 Seconds
(without alignments)
768.806 Million cell updates/sec

Title: US-10-747-702-3
Perfect score: 1691
Sequence: 1 MDPTIPVLGTKLTPINGREE.....EGGGWLPQETLELSGSKLEQ 322

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA_Main:*
1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
3: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
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5: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*
6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1647	97.4	322	4	US-10-292-798-1274	Sequence 1274, Ap
2	1647	97.4	322	4	US-10-072-012-530	Sequence 530, App
3	1647	97.4	322	4	US-10-072-012-535	Sequence 535, App
4	1642	97.1	322	3	US-09-995-225-20	Sequence 20, Appl
5	1642	97.1	322	3	US-09-995-225-20	Sequence 20, Appl
6	1642	97.1	322	4	US-10-183-116-31	Sequence 31, Appl
7	1642	97.1	322	4	US-10-225-567A-674	Sequence 674, App
8	1642	97.1	322	4	US-10-072-012-529	Sequence 529, App
9	1642	97.1	322	4	US-10-072-012-534	Sequence 534, App
10	1642	97.1	322	5	US-10-957-135-31	Sequence 31, Appl
11	1642	97.1	322	6	US-11-083-611-31	Sequence 31, Appl
12	1642	97.1	337	3	US-09-867-570-2	Sequence 2, Appli
13	1642	97.1	560	5	US-10-505-486-104	Sequence 104, App
14	1637	96.8	322	4	US-10-401-397A-2	Sequence 2, Appli
15	1637	96.8	322	5	US-10-977-810-2	Sequence 2, Appli
16	1628	96.3	322	4	US-10-391-074-2	Sequence 2, Appli
17	1593	94.2	314	4	US-10-219-834-79	Sequence 79, Appl
18	1527	90.3	302	4	US-10-237-467-10	Sequence 10, Appl
19	1375	81.3	322	5	US-10-488-523-6	Sequence 6, Appli
20	1373	81.2	322	4	US-10-183-116-16	Sequence 16, Appl
21	1373	81.2	322	4	US-10-079-384-4	Sequence 4, Appli
22	1373	81.2	322	4	US-10-017-161-1056	Sequence 1056, Ap
23	1373	81.2	322	4	US-10-240-998-4	Sequence 4, Appli
24	1373	81.2	322	4	US-10-321-807-20	Sequence 20, Appl
25	1373	81.2	322	4	US-10-237-467-12	Sequence 12, Appl
26	1373	81.2	322	4	US-10-292-798-898	Sequence 898, App
27	1373	81.2	322	4	US-10-016-248-81	Sequence 81, Appl
28	1373	81.2	322	4	US-10-072-012-172	Sequence 172, App
29	1373	81.2	322	4	US-10-072-012-527	Sequence 527, App
30	1373	81.2	322	4	US-10-072-012-533	Sequence 533, App
31	1373	81.2	322	4	US-10-343-650A-44	Sequence 44, Appl
32	1373	81.2	322	4	US-10-321-807-20	Sequence 20, Appl
33	1373	81.2	322	4	US-10-314-048A-20	Sequence 20, Appl
34	1373	81.2	322	5	US-10-481-161-2	Sequence 2, Appli
35	1373	81.2	322	5	US-10-897-815-20	Sequence 20, Appl
36	1373	81.2	322	5	US-10-957-135-16	Sequence 16, Appl
37	1373	81.2	322	5	US-10-930-662-20	Sequence 20, Appl
38	1373	81.2	322	6	US-11-083-611-16	Sequence 16, Appl
39	1373	81.2	322	6	US-11-117-746-4	Sequence 4, Appli
40	1373	81.2	1589	4	US-10-072-012-528	Sequence 528, App
41	1373	81.2	1589	4	US-10-072-012-532	Sequence 532, App
42	1366	80.8	322	3	US-09-995-225-18	Sequence 18, Appl
43	1366	80.8	322	3	US-09-995-225-18	Sequence 18, Appl
44	1366	80.8	322	4	US-10-183-116-33	Sequence 33, Appl
45	1366	80.8	322	4	US-10-225-567A-689	Sequence 689, App

ALIGNMENTS

RESULT 1
US-10-292-798-1274
; Sequence 1274, Application US/10292798
; Publication No. US20030235833A1
; GENERAL INFORMATION:
; APPLICANT: SUWA, MAKIKO
; APPLICANT: ASAI, KIYOSHI
; APPLICANT: AKIYAMA, YUTAKA
; APPLICANT: ABURATANI, HIROYUKI
; TITLE OF INVENTION: GUANOSINE TRIPHOSPHATE-BINDING PROTEIN COUPLED RECEPTORS
; FILE REFERENCE: 084335/166
; CURRENT APPLICATION NUMBER: US/10/292,798
; CURRENT FILING DATE: 2002-11-13
; PRIOR APPLICATION NUMBER: 10/017,161
; PRIOR FILING DATE: 2001-12-18
; PRIOR APPLICATION NUMBER: JP 2001-246789
; PRIOR FILING DATE: 2001-06-18
; NUMBER OF SEQ ID NOS: 2070
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1274
; LENGTH: 322
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-292-798-1274 *

Query Match 97.4%; Score 1647; DB 4; Length 322;
Best Local Similarity 97.5%; Pred. No. 8.9e-140;
Matches 314; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

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Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
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Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
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Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
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Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
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Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 2
US-10-072-012-530
; Sequence 530, Application US/10072012
; Publication No. US20040033493A1
; GENERAL INFORMATION:
;  APPLICANT: Tchernev, Velizar
;  APPLICANT:  Spytek, Kimberly
;  APPLICANT:  Zerhusen, Bryan
;  APPLICANT:  Patturajan, Meera
;  APPLICANT:  Shimkets, Richard
;  APPLICANT:  Li, Li
;  APPLICANT:  Gangolli, Esha
;  APPLICANT:  Padigaru, Muralidhara
;  APPLICANT:  Anderson, David W.
;  APPLICANT:  Rastelli, Luca
;  APPLICANT:  Miller, Charles E.
;  APPLICANT:  Gerlach, Valerie
;  APPLICANT:  Taupier Jr, Raymond J.
;  APPLICANT:  Gusev, Vladimir Y.
;  APPLICANT:  Colman, Steven D.
;  APPLICANT:  Wolenc, Adam R.
;  APPLICANT:  Pena, Carol E. A
;  APPLICANT:  Furtak, Katarzyna
;  APPLICANT:  Grosse, William M.
;  APPLICANT:  Alsobrook II, John P.
;  APPLICANT:  Lepley, Denise M.
;  APPLICANT:  Rieger, Daniel K.
;  APPLICANT:  Burgess, Catherine E.
;  TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
;  FILE REFERENCE: 21402-258
;  CURRENT APPLICATION NUMBER: US/10/072,012
;  CURRENT FILING DATE:  2002-01-31
;  PRIOR APPLICATION NUMBER: 60/265,102
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: 60/265,514
;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/265,517
;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/265,412
;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/265,395
;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/266,406
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 60/266,767
;  PRIOR FILING DATE: 2001-02-05
;  PRIOR APPLICATION NUMBER: 60/267,057
;  PRIOR FILING DATE: 2001-02-07
;  PRIOR APPLICATION NUMBER: 60/266,975
;  PRIOR FILING DATE: 2001-02-07
;  PRIOR APPLICATION NUMBER: 60/267,459
;  PRIOR FILING DATE: 2001-02-08
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 1391
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 530
;   LENGTH: 322
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-072-012-530

  Query Match             97.4%;  Score 1647;  DB 4;  Length 322;
  Best Local Similarity   97.5%;  Pred. No. 8.9e-140;
  Matches  314;  Conservative    4;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
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Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
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Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
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Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
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Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 3
US-10-072-012-535
; Sequence 535, Application US/10072012
; Publication No. US20040033493A1
; GENERAL INFORMATION:
;  APPLICANT: Tchernev, Velizar
;  APPLICANT:  Spytek, Kimberly
;  APPLICANT:  Zerhusen, Bryan
;  APPLICANT:  Patturajan, Meera
;  APPLICANT:  Shimkets, Richard
;  APPLICANT:  Li, Li
;  APPLICANT:  Gangolli, Esha
;  APPLICANT:  Padigaru, Muralidhara
;  APPLICANT:  Anderson, David W.
;  APPLICANT:  Rastelli, Luca
;  APPLICANT:  Miller, Charles E.
;  APPLICANT:  Gerlach, Valerie
;  APPLICANT:  Taupier Jr, Raymond J.
;  APPLICANT:  Gusev, Vladimir Y.
;  APPLICANT:  Colman, Steven D.
;  APPLICANT:  Wolenc, Adam R.
;  APPLICANT:  Pena, Carol E. A
;  APPLICANT:  Furtak, Katarzyna
;  APPLICANT:  Grosse, William M.
;  APPLICANT:  Alsobrook II, John P.
;  APPLICANT:  Lepley, Denise M.
;  APPLICANT:  Rieger, Daniel K.
;  APPLICANT:  Burgess, Catherine E.
;  TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
;  FILE REFERENCE: 21402-258
;  CURRENT APPLICATION NUMBER: US/10/072,012
;  CURRENT FILING DATE:  2002-01-31
;  PRIOR APPLICATION NUMBER: 60/265,102
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: 60/265,514
;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/265,517
;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/265,412
;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/265,395
;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/266,406
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 60/266,767
;  PRIOR FILING DATE: 2001-02-05
;  PRIOR APPLICATION NUMBER: 60/267,057
;  PRIOR FILING DATE: 2001-02-07
;  PRIOR APPLICATION NUMBER: 60/266,975
;  PRIOR FILING DATE: 2001-02-07
;  PRIOR APPLICATION NUMBER: 60/267,459
;  PRIOR FILING DATE: 2001-02-08
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;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 1391
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 535
;   LENGTH: 322
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-072-012-535

  Query Match            97.4%;  Score 1647;  DB 4;  Length 322;
  Best Local Similarity  97.5%;  Pred. No. 8.9e-140;
  Matches  314;  Conservative    4;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
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Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
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Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
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Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
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Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
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Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
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Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 4
US-09-995-225-20
; Sequence 20, Application US/09995225
; Publication No. US20020193584A1
; GENERAL INFORMATION:
;  APPLICANT: Chen, Ruoping
;  APPLICANT:  Chu, Zhi Liang
;  APPLICANT:  Dang, Huong T.
;  APPLICANT:  Lowitz, Kevin P.
;  APPLICANT:  Pride, Cameron
;  TITLE OF INVENTION: Endogenous And No. US20020193584A1-Endogenous Versions of Human G
;  TITLE OF INVENTION:  Receptors
;  FILE REFERENCE: AREN-0308
;  CURRENT APPLICATION NUMBER: US/09/995,225
;  CURRENT FILING DATE:  2001-11-26
;  PRIOR APPLICATION NUMBER: 09/170,496
;  PRIOR FILING DATE: 1998-10-13
;  PRIOR APPLICATION NUMBER: PCT/US99/23938
;  PRIOR FILING DATE: 1998-10-13
;  PRIOR APPLICATION NUMBER: 60/253,404
;  PRIOR FILING DATE: 2000-11-27
;  PRIOR APPLICATION NUMBER: 60/255,366
;  PRIOR FILING DATE: 2000-12-12
;  PRIOR APPLICATION NUMBER: 60/270,286
;  PRIOR FILING DATE: 2001-02-20
;  PRIOR APPLICATION NUMBER: 60/282,365
;  PRIOR FILING DATE: 2001-04-06
;  PRIOR APPLICATION NUMBER: 60/270,266
;  PRIOR FILING DATE: 2001-02-20
;  PRIOR APPLICATION NUMBER: 60/282,032
;  PRIOR FILING DATE: 2001-04-06
;  PRIOR APPLICATION NUMBER: 60/282,358
;  PRIOR FILING DATE: 2001-04-06
;  PRIOR APPLICATION NUMBER: 60/282,356
;  PRIOR FILING DATE: 2001-04-06
;  PRIOR APPLICATION NUMBER: 60/290,917
;  PRIOR FILING DATE: 2001-05-14
;  PRIOR APPLICATION NUMBER: 60/309,208
;  PRIOR FILING DATE: 2001-07-31
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 20
;   LENGTH: 322
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: No. US20020193584A1el Sequence
US-09-995-225-20

  Query Match            97.1%;  Score 1642;  DB 3;  Length 322;
  Best Local Similarity  97.2%;  Pred. No. 2.5e-139;
  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
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Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
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Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||:||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
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Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
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Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
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Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 5
US-09-995-225-20
; Sequence 20, Application US/09995225
; Publication No. US20030139588A9
; GENERAL INFORMATION:
;  APPLICANT: Chen, Ruoping
;  APPLICANT:  Chu, Zhi Liang
;  APPLICANT:  Dang, Huong T.
;  APPLICANT:  Lowitz, Kevin P.
;  APPLICANT:  Pride, Cameron
;  TITLE OF INVENTION: Endogenous And No. US20030139588A9-Endogenous Versions of Human G
;  TITLE OF INVENTION:  Receptors
;  FILE REFERENCE: AREN-0308
;  CURRENT APPLICATION NUMBER: US/09/995,225
;  CURRENT FILING DATE:  2001-11-26
;  PRIOR APPLICATION NUMBER: 09/170,496
;  PRIOR FILING DATE: 1998-10-13
;  PRIOR APPLICATION NUMBER: PCT/US99/23938
;  PRIOR FILING DATE: 1998-10-13
;  PRIOR APPLICATION NUMBER: 60/253,404
;  PRIOR FILING DATE: 2000-11-27
;  PRIOR APPLICATION NUMBER: 60/255,366
;  PRIOR FILING DATE: 2000-12-12
;  PRIOR APPLICATION NUMBER: 60/270,286
;  PRIOR FILING DATE: 2001-02-20
;  PRIOR APPLICATION NUMBER: 60/282,365
;  PRIOR FILING DATE: 2001-04-06
;  PRIOR APPLICATION NUMBER: 60/270,266
;  PRIOR FILING DATE: 2001-02-20
;  PRIOR APPLICATION NUMBER: 60/282,032
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;  PRIOR FILING DATE: 2001-04-06
;  PRIOR APPLICATION NUMBER: 60/282,358
;  PRIOR FILING DATE: 2001-04-06
;  PRIOR APPLICATION NUMBER: 60/282,356
;  PRIOR FILING DATE: 2001-04-06
;  PRIOR APPLICATION NUMBER: 60/290,917
;  PRIOR FILING DATE: 2001-05-14
;  PRIOR APPLICATION NUMBER: 60/309,208
;  PRIOR FILING DATE: 2001-07-31
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 20
;   LENGTH: 322
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: No. US20030139588A9el Sequence
US-09-995-225-20

  Query Match             97.1%;  Score 1642;  DB 3;  Length 322;
  Best Local Similarity   97.2%;  Pred. No. 2.5e-139;
  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:||||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
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Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
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Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
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Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
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Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 6
US-10-183-116-31
; Sequence 31, Application US/10183116
; Publication No. US20030092035A1
; GENERAL INFORMATION:
;  APPLICANT: Anderson, David J.
;  APPLICANT:  Dong, Xinzhong
;  APPLICANT:  Zylka, Mark
;  APPLICANT:  Simon, Melvin
;  APPLICANT:  Han, Sang-kyou
;  TITLE OF INVENTION: PAIN SIGNALING MOLECULES
;  FILE REFERENCE: CALTE.4C1CP1
;  CURRENT APPLICATION NUMBER: US/10/183,116
;  CURRENT FILING DATE:  2002-06-26
;  PRIOR APPLICATION NUMBER: US 60/222,344
;  PRIOR FILING DATE: 2000-08-01
;  PRIOR APPLICATION NUMBER: US 60/202,027
;  PRIOR FILING DATE: 2000-05-04
;  PRIOR APPLICATION NUMBER: US 09/704,707
;  PRIOR FILING DATE: 2000-11-03
;  PRIOR APPLICATION NUMBER: US 60/285,493
;  PRIOR FILING DATE: 2001-04-19
;  PRIOR APPLICATION NUMBER: US 09/849,869
;  PRIOR FILING DATE: 2001-05-04
;  NUMBER OF SEQ ID NOS: 109
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 31
;   LENGTH: 322
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-183-116-31

  Query Match             97.1%;  Score 1642;  DB 4;  Length 322;
  Best Local Similarity   97.2%;  Pred. No. 2.5e-139;
  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:||||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
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Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              ||||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 7
US-10-225-567A-674
; Sequence 674, Application US/10225567A
; Publication No. US20030113798A1
; GENERAL INFORMATION:
;  APPLICANT: LifeSpan Biosciences
;  APPLICANT:  Brown, Joseph P.
;  APPLICANT:  Burmer, Glenna C.
;  APPLICANT:  Roush, Christine L.
;  TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS
;  FILE REFERENCE: 1920-4-4
;  CURRENT APPLICATION NUMBER: US/10/225,567A
;  CURRENT FILING DATE:  2001-12-19
;  PRIOR APPLICATION NUMBER: 60/257,144
;  PRIOR FILING DATE: 2000-12-19
;  NUMBER OF SEQ ID NOS: 2292
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 674
;   LENGTH: 322
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-225-567A-674

  Query Match             97.1%;  Score 1642;  DB 4;  Length 322;
  Best Local Similarity   97.2%;  Pred. No. 2.5e-139;
  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:||||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||:||||||||||||
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Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLPSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 8
US-10-072-012-529
; Sequence 529, Application US/10072012
; Publication No. US20040033493A1
; GENERAL INFORMATION:
;  APPLICANT: Tchernev, Velizar
;  APPLICANT:  Spytek, Kimberly
;  APPLICANT:  Zerhusen, Bryan
;  APPLICANT:  Patturajan, Meera
;  APPLICANT:  Shimkets, Richard
;  APPLICANT:  Li, Li
;  APPLICANT:  Gangolli, Esha
;  APPLICANT:  Padigaru, Muralidhara
;  APPLICANT:  Anderson, David W.
;  APPLICANT:  Rastelli, Luca
;  APPLICANT:  Miller, Charles E.
;  APPLICANT:  Gerlach, Valerie
;  APPLICANT:  Taupier Jr, Raymond J.
;  APPLICANT:  Gusev, Vladimir Y.
;  APPLICANT:  Colman, Steven D.
;  APPLICANT:  Wolenc, Adam R.
;  APPLICANT:  Pena, Carol E. A
;  APPLICANT:  Furtak, Katarzyna
;  APPLICANT:  Grosse, William M.
;  APPLICANT:  Alsobrook II, John P.
;  APPLICANT:  Lepley, Denise M.
;  APPLICANT:  Rieger, Daniel K.
;  APPLICANT:  Burgess, Catherine E.
;  TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
;  FILE REFERENCE: 21402-258
;  CURRENT APPLICATION NUMBER: US/10/072,012
;  CURRENT FILING DATE:  2002-01-31
;  PRIOR APPLICATION NUMBER: 60/265,102
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: 60/265,514
;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/265,517
;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/265,412
;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/265,395
;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/266,406
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 60/266,767
;  PRIOR FILING DATE: 2001-02-05
;  PRIOR APPLICATION NUMBER: 60/267,057
;  PRIOR FILING DATE: 2001-02-07
;  PRIOR APPLICATION NUMBER: 60/266,975
;  PRIOR FILING DATE: 2001-02-07
;  PRIOR APPLICATION NUMBER: 60/267,459
;  PRIOR FILING DATE: 2001-02-08
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 1391
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 529
;   LENGTH: 322
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-072-012-529

  Query Match             97.1%;  Score 1642;  DB 4;  Length 322;
  Best Local Similarity   97.2%;  Pred. No. 2.5e-139;
  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:||||||||||||| ||||||||||:||||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||:||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 9
US-10-072-012-534
; Sequence 534, Application US/10072012
; Publication No. US20040033493A1
; GENERAL INFORMATION:
;  APPLICANT: Tchernev, Velizar
;  APPLICANT:  Spytek, Kimberly
;  APPLICANT:  Zerhusen, Bryan
;  APPLICANT:  Patturajan, Meera
;  APPLICANT:  Shimkets, Richard
;  APPLICANT:  Li, Li
;  APPLICANT:  Gangolli, Esha
;  APPLICANT:  Padigaru, Muralidhara
;  APPLICANT:  Anderson, David W.
;  APPLICANT:  Rastelli, Luca
;  APPLICANT:  Miller, Charles E.
;  APPLICANT:  Gerlach, Valerie
;  APPLICANT:  Taupier Jr, Raymond J.
;  APPLICANT:  Gusev, Vladimir Y.
;  APPLICANT:  Colman, Steven D.
;  APPLICANT:  Wolenc, Adam R.
;  APPLICANT:  Pena, Carol E. A
;  APPLICANT:  Furtak, Katarzyna
;  APPLICANT:  Grosse, William M.
;  APPLICANT:  Alsobrook II, John P.
;  APPLICANT:  Lepley, Denise M.
;  APPLICANT:  Rieger, Daniel K.
;  APPLICANT:  Burgess, Catherine E.
;  TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
;  FILE REFERENCE: 21402-258
;  CURRENT APPLICATION NUMBER: US/10/072,012
;  CURRENT FILING DATE:  2002-01-31
;  PRIOR APPLICATION NUMBER: 60/265,102
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: 60/265,514
;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/265,517
;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/265,412
;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/265,395
```

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;  PRIOR FILING DATE: 2001-01-31
;  PRIOR APPLICATION NUMBER: 60/266,406
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 60/266,767
;  PRIOR FILING DATE: 2001-02-05
;  PRIOR APPLICATION NUMBER: 60/267,057
;  PRIOR FILING DATE: 2001-02-07
;  PRIOR APPLICATION NUMBER: 60/266,975
;  PRIOR FILING DATE: 2001-02-07
;  PRIOR APPLICATION NUMBER: 60/267,459
;  PRIOR FILING DATE: 2001-02-08
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 1391
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 534
;    LENGTH: 322
;    TYPE: PRT
;    ORGANISM: Homo sapiens
US-10-072-012-534

  Query Match             97.1%;  Score 1642;  DB 4;  Length 322;
  Best Local Similarity   97.2%;  Pred. No. 2.5e-139;
  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:|||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||:||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 10
US-10-957-135-31
; Sequence 31, Application US/10957135
; Publication No. US20050037468A1
; GENERAL INFORMATION:
;  APPLICANT: Anderson, David J.
;  APPLICANT:  Dong, Xinzhong
;  APPLICANT:  Zylka, Mark
;  APPLICANT:  Simon, Melvin
;  APPLICANT:  Han, Sang-kyou
;  TITLE OF INVENTION: PAIN SIGNALING MOLECULES
;  FILE REFERENCE: CALTE.4C1CP1C1
;  CURRENT APPLICATION NUMBER: US/10/957,135
;  CURRENT FILING DATE:  2004-09-30
;  PRIOR APPLICATION NUMBER: US 60/222,344
;  PRIOR FILING DATE: 2000-08-01
;  PRIOR APPLICATION NUMBER: US 60/202,027
;  PRIOR FILING DATE: 2000-05-04
;  PRIOR APPLICATION NUMBER: US 09/704,707
;  PRIOR FILING DATE: 2000-11-03
;  PRIOR APPLICATION NUMBER: US 60/285,493
;  PRIOR FILING DATE: 2001-04-19
;  PRIOR APPLICATION NUMBER: US 09/849,869
;  PRIOR FILING DATE: 2001-05-04
;  PRIOR APPLICATION NUMBER: US 10/183,116
;  PRIOR FILING DATE: 2002-06-26
;  NUMBER OF SEQ ID NOS: 109
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 31
;    LENGTH: 322
;    TYPE: PRT
;    ORGANISM: Homo sapiens
US-10-957-135-31

  Query Match             97.1%;  Score 1642;  DB 5;  Length 322;
  Best Local Similarity   97.2%;  Pred. No. 2.5e-139;
  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:|||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||:||||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              |||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 11
US-11-083-611-31
; Sequence 31, Application US/11083611
; Publication No. US20050164288A1
; GENERAL INFORMATION:
;  APPLICANT: Anderson, David J.
;  APPLICANT:  Dong, Xinzhong
;  APPLICANT:  Zylka, Mark
;  APPLICANT:  Simon, Melvin
;  APPLICANT:  Han, Sang-kyou
;  TITLE OF INVENTION: PAIN SIGNALING MOLECULES
;  FILE REFERENCE: CALTE.004C1
;  CURRENT APPLICATION NUMBER: US/11/083,611
;  CURRENT FILING DATE:  2005-03-17
;  PRIOR APPLICATION NUMBER: US 09/849,869
;  PRIOR FILING DATE: 2001-05-04
;  PRIOR APPLICATION NUMBER: US 60/222,344
;  PRIOR FILING DATE: 2000-08-01
;  PRIOR APPLICATION NUMBER: US 60/202,027
;  PRIOR FILING DATE: 2000-05-04
;  PRIOR APPLICATION NUMBER: US 09/704,707
;  PRIOR FILING DATE: 2000-11-03
;  PRIOR APPLICATION NUMBER: US 60/285,493
;  PRIOR FILING DATE: 2001-04-19
;  NUMBER OF SEQ ID NOS: 115
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 31
;    LENGTH: 322
;    TYPE: PRT
;    ORGANISM: Homo sapiens
US-11-083-611-31

  Query Match             97.1%;  Score 1642;  DB 6;  Length 322;
  Best Local Similarity   97.2%;  Pred. No. 2.5e-139;
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  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:|||||||||||||||||||||||
Db          1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 60

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||
Db         61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||:||||||||||
Db        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              ||||||||||||||||||:|||
Db        301 VDEGGGWLPQETLELSGSRLEQ 322


RESULT 12
US-09-867-570-2
; Sequence 2, Application US/09867570
; Publication No. US20040076951A1
; GENERAL INFORMATION:
;  APPLICANT: WEI, Ming-Hui et al.
;  TITLE OF INVENTION: ISOLATED HUMAN G-PROTEIN COUPLED
;  TITLE OF INVENTION:  RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR
;  TITLE OF INVENTION:  PROTEINS, AND USES THEREOF
;  FILE REFERENCE: CL000900-CIP
;  CURRENT APPLICATION NUMBER: US/09/867,570
;  CURRENT FILING DATE:  2001-05-31
;  PRIOR APPLICATION NUMBER: 09/695,045
;  PRIOR FILING DATE: 2000-10-25
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
;   LENGTH: 337
;   TYPE: PRT
;   ORGANISM: Human
US-09-867-570-2

  Query Match             97.1%;  Score 1642;  DB 3;  Length 337;
  Best Local Similarity   97.2%;  Pred. No. 2.6e-139;
  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:|||||||||||||||||||||||
Db         16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 75

Qy         61 VSIYILNLVAANFLFLSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
              ||||||||||:||||||||| ||| ||||||||||||||||||||||||||||||||||
Db         76 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 135

Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||:||||||||||
Db        136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 195

Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        196 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 255

Qy        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        256 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 315

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
              ||||||||||||||||||:|||
Db        316 VDEGGGWLPQETLELSGSRLEQ 337


RESULT 13
US-10-505-486-104
; Sequence 104, Application US/10505486
; Publication No. US20050118639A1
; GENERAL INFORMATION:
;  APPLICANT: Takeda Chemical Industries, Ltd.
;  TITLE OF INVENTION: Determination of a ligand
;  FILE REFERENCE: P03-0006PCT
;  CURRENT APPLICATION NUMBER: US/10/505,486
;  CURRENT FILING DATE:  2004-08-20
;  PRIOR APPLICATION NUMBER: JP 2002-45728
;  PRIOR FILING DATE: 2002-02-22
;  PRIOR APPLICATION NUMBER: JP 2002-213949
;  PRIOR FILING DATE: 2002-07-23
;  PRIOR APPLICATION NUMBER: JP 2002-298237
;  PRIOR FILING DATE: 2002-10-11
;  NUMBER OF SEQ ID NOS: 233
; SEQ ID NO 104
;   LENGTH: 560
;   TYPE: PRT
;   ORGANISM: Human
US-10-505-486-104

  Query Match             97.1%;  Score 1642;  DB 5;  Length 560;
  Best Local Similarity   97.2%;  Pred. No. 4.5e-139;
  Matches  313;  Conservative    5;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
              || |||||||:|||||||||||||| ||||||||||:|||||||||||||||||||||||
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Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
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RESULT 14
US-10-401-397A-2
; Sequence 2, Application US/10401397A
; Publication No. US20030212001A1
; GENERAL INFORMATION:
;  APPLICANT: Peri, Krishna G.
;  APPLICANT:  Moffett, Serge
;  APPLICANT:  Abran, Daniel
;  TITLE OF INVENTION: METHODS AND COMPOUNDS FOR PREVENTION AND TREATMENT OF ELEVATED
;  TITLE OF INVENTION:  INTRAOCULAR PRESSURE AND RELATED CONDITIONS
;  FILE REFERENCE: 4518/1M674US1
;  CURRENT APPLICATION NUMBER: US/10/401,397A
;  CURRENT FILING DATE:  2003-03-27
;  PRIOR APPLICATION NUMBER: US 60/367,513
;  PRIOR FILING DATE: 2002-03-27
;  NUMBER OF SEQ ID NOS: 8
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;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 322
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-401-397A-2

  Query Match             96.8%;  Score 1637;  DB 4;  Length 322;
  Best Local Similarity   96.9%;  Pred. No. 7e-139;
  Matches  312;  Conservative    6;  Mismatches    4;  Indels    0;  Gaps    0;

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Qy        181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 240
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Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
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; Sequence 2, Application US/10977810
; Publication No. US20050059604A1
; GENERAL INFORMATION:
;  APPLICANT: Peri, Krishna G.
;  APPLICANT:  Moffett, Serge
;  APPLICANT:  Abran, Daniel
;  TITLE OF INVENTION: METHODS AND COMPOUNDS FOR PREVENTION AND TREATMENT OF ELEVATED
;  TITLE OF INVENTION:  INTRAOCULAR PRESSURE AND RELATED CONDITIONS
;  FILE REFERENCE: 04518/100M674-US2
;  CURRENT APPLICATION NUMBER: US/10/977,810
;  CURRENT FILING DATE:  2004-10-28
;  PRIOR APPLICATION NUMBER: US 60/367,513
;  PRIOR FILING DATE: 2002-03-27
;  NUMBER OF SEQ ID NOS: 8
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 322
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-977-810-2

  Query Match             96.8%;  Score 1637;  DB 5;  Length 322;
  Best Local Similarity   96.9%;  Pred. No. 7e-139;
  Matches  312;  Conservative    6;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MDPTIPVLGTKLTPINGREETPCYNQTLSFTGLTCIISLVALTGNAVVLWLLGCRMRRNA 60
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Qy        121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT 180
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Db        241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300

Qy        301 VDEGGGWLPQETLELSGSKLEQ 322
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Db        301 VDEGGGWLPQETLELSGSRLEQ 322


Search completed: February  3, 2006, 20:46:57
Job time : 177 secs
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GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: February 3, 2006, 20:44:10 ; Search time 16 Seconds
(without alignments)
235.826 Million cell updates/sec

Title: US-10-747-702-3
Perfect score: 1691
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Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 88029 seqs, 11718060 residues

Total number of hits satisfying chosen parameters: 88029

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA_New:*
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8: /cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	485.5	28.7	311	6	US-10-980-388-111	Sequence 111, App
2	485.5	28.7	530	6	US-10-980-388-62	Sequence 62, Appl
3	479.5	28.4	311	6	US-10-980-388-113	Sequence 113, App
4	410.5	24.3	343	6	US-10-055-877-244	Sequence 244, App
5	410.5	24.3	343	6	US-10-055-877-245	Sequence 245, App
6	403.5	23.9	343	6	US-10-055-877-71	Sequence 71, Appl
7	375.5	22.2	323	6	US-10-980-388-119	Sequence 119, App
8	367.5	21.7	342	6	US-10-055-877-246	Sequence 246, App
9	366.5	21.7	319	6	US-10-055-877-247	Sequence 247, App
10	350	20.7	340	6	US-10-055-877-69	Sequence 69, Appl
11	257.5	15.2	187	6	US-10-980-388-39	Sequence 39, Appl
12	257.5	15.2	187	6	US-10-980-388-98	Sequence 98, Appl
13	243	14.4	211	6	US-10-980-388-97	Sequence 97, Appl
14	215.5	12.7	353	7	US-11-017-058-9	Sequence 9, Appli
15	205	12.1	259	6	US-10-055-877-225	Sequence 225, App
16	205	12.1	259	6	US-10-055-877-237	Sequence 237, App
17	201	11.9	388	6	US-10-995-561-838	Sequence 838, App
18	201	11.9	389	6	US-10-995-561-837	Sequence 837, App
19	200.5	11.9	254	6	US-10-055-877-248	Sequence 248, App
20	200.5	11.9	254	6	US-10-055-877-327	Sequence 327, App
21	200.5	11.9	254	6	US-10-055-877-340	Sequence 340, App
22	200.5	11.9	254	6	US-10-877-346-83	Sequence 83, Appl
23	196	11.6	350	6	US-10-502-145-1	Sequence 1, Appli
24	196	11.6	350	7	US-11-169-976-9	Sequence 9, Appli
25	195	11.5	333	7	US-11-127-877-57	Sequence 57, Appl
26	190.5	11.3	342	7	US-11-151-482-1	Sequence 1, Appli
27	189.5	11.2	342	7	US-11-151-482-3	Sequence 3, Appli
28	187	11.1	269	7	US-11-151-482-5	Sequence 5, Appli
29	182.5	10.8	346	7	US-11-157-930-2	Sequence 2, Appli
30	176	10.4	340	6	US-10-980-388-117	Sequence 117, App
31	176	10.4	415	7	US-11-017-058-2	Sequence 2, Appli
32	173	10.2	400	7	US-11-127-877-55	Sequence 55, Appl
33	171	10.1	340	7	US-11-127-877-53	Sequence 53, Appl
34	171	10.1	373	7	US-11-127-877-46	Sequence 46, Appl
35	168.5	10.0	204	6	US-10-055-877-161	Sequence 161, App
36	168	9.9	351	7	US-11-122-849-2	Sequence 2, Appli
37	164.5	9.7	359	6	US-10-995-561-712	Sequence 712, App
38	164.5	9.7	359	6	US-10-995-561-716	Sequence 716, App
39	164.5	9.7	359	6	US-10-876-787-2	Sequence 2, Appli
40	164.5	9.7	359	7	US-11-127-877-65	Sequence 65, Appl
41	164.5	9.7	388	6	US-10-995-561-713	Sequence 713, App
42	164.5	9.7	394	6	US-10-995-561-714	Sequence 714, App
43	164.5	9.7	394	6	US-10-995-561-715	Sequence 715, App
44	163.5	9.7	337	7	US-11-157-930-5	Sequence 5, Appli
45	160.5	9.5	374	7	US-11-127-877-62	Sequence 62, Appl

ALIGNMENTS

RESULT 1
US-10-980-388-111
; Sequence 111, Application US/10980388
; Publication No. US20050255490A1
; GENERAL INFORMATION:
; APPLICANT: Vogeli, Gabriel
; APPLICANT: Parodi, Luis A.
; APPLICANT: Hiebsch, Ronald R.
; APPLICANT: Lind, Peter
; APPLICANT: Kaytes, Paul S.
; APPLICANT: Ruff, Valerie
; APPLICANT: Huff, Rita M.
; APPLICANT: Wood, Linda S.
; TITLE OF INVENTION: Novel G Protein-Coupled Receptors Cross-Reference To Related Appli
; FILE REFERENCE: 00325.US1
; CURRENT APPLICATION NUMBER: US/10/980,388
; CURRENT FILING DATE: 2004-11-02
; PRIOR APPLICATION NUMBER: US/09/791,932
; PRIOR FILING DATE: 2001-02-23
; PRIOR APPLICATION NUMBER: 60/184,305
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/184,304
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/184,303
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/184,397
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/184,247
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/188,880
; PRIOR FILING DATE: 2000-03-13
; PRIOR APPLICATION NUMBER: 60/217,369
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 60/217,370
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 60/218,492
; PRIOR FILING DATE: 2000-07-20
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 184
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 111
; LENGTH: 311
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-980-388-111

Query Match 28.7%; Score 485.5; DB 6; Length 311;
Best Local Similarity 38.5%; Pred. No. 3.5e-35;

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Qy        246 WKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEV 301
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US-10-980-388-62
; Sequence 62, Application US/10980388
; Publication No. US20050255490A1
; GENERAL INFORMATION:
;  APPLICANT: Vogeli, Gabriel
;  APPLICANT:  Parodi, Luis A.
;  APPLICANT:  Hiebsch, Ronald R.
;  APPLICANT:  Lind, Peter
;  APPLICANT:  Kaytes, Paul S.
;  APPLICANT:  Ruff, Valerie
;  APPLICANT:  Huff, Rita M.
;  APPLICANT:  Wood, Linda S.
;  TITLE OF INVENTION: Novel G Protein-Coupled Receptors Cross-Reference To Related Appl
;  FILE REFERENCE: 00325.US1
;  CURRENT APPLICATION NUMBER: US/10/980,388
;  CURRENT FILING DATE:  2004-11-02
;  PRIOR APPLICATION NUMBER: US/09/791,932
;  PRIOR FILING DATE: 2001-02-23
;  PRIOR APPLICATION NUMBER: 60/184,305
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,304
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,303
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,397
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,247
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/188,880
;  PRIOR FILING DATE: 2000-03-13
;  PRIOR APPLICATION NUMBER: 60/217,369
;  PRIOR FILING DATE: 2000-07-11
;  PRIOR APPLICATION NUMBER: 60/217,370
;  PRIOR FILING DATE: 2000-07-11
;  PRIOR APPLICATION NUMBER: 60/218,492
;  PRIOR FILING DATE: 2000-07-20
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 184
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 62
;   LENGTH: 530
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-980-388-62

  Query Match             28.7%;  Score 485.5;  DB 6;  Length 530;
  Best Local Similarity   38.5%;  Pred. No. 5.8e-35;
  Matches  114;  Conservative   51;  Mismatches  120;  Indels   11;  Gaps    6;
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Qy         69 VAANFLFLSGHIIFSPLPLINIRHPISKILS---PVMTFPYFIGLSMLSAISTERCLSIL 125
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Qy        246 WKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEV 301
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RESULT 3
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; Sequence 113, Application US/10980388
; Publication No. US20050255490A1
; GENERAL INFORMATION:
;  APPLICANT: Vogeli, Gabriel
;  APPLICANT:  Parodi, Luis A.
;  APPLICANT:  Hiebsch, Ronald R.
;  APPLICANT:  Lind, Peter
;  APPLICANT:  Kaytes, Paul S.
;  APPLICANT:  Ruff, Valerie
;  APPLICANT:  Huff, Rita M.
;  APPLICANT:  Wood, Linda S.
;  TITLE OF INVENTION: Novel G Protein-Coupled Receptors Cross-Reference To Related Appli
;  FILE REFERENCE: 00325.US1
;  CURRENT APPLICATION NUMBER: US/10/980,388
;  CURRENT FILING DATE:  2004-11-02
;  PRIOR APPLICATION NUMBER: US/09/791,932
;  PRIOR FILING DATE: 2001-02-23
;  PRIOR APPLICATION NUMBER: 60/184,305
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,304
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,303
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,397
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,247
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/188,880
;  PRIOR FILING DATE: 2000-03-13
;  PRIOR APPLICATION NUMBER: 60/217,369
;  PRIOR FILING DATE: 2000-07-11
;  PRIOR APPLICATION NUMBER: 60/217,370
;  PRIOR FILING DATE: 2000-07-11
;  PRIOR APPLICATION NUMBER: 60/218,492
;  PRIOR FILING DATE: 2000-07-20
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 184
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 113
;   LENGTH: 311
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-980-388-113

  Query Match             28.4%;  Score 479.5;  DB 6;  Length 311;
  Best Local Similarity   38.2%;  Pred. No. 1.1e-34;
  Matches  113;  Conservative   51;  Mismatches  121;  Indels   11;  Gaps    6;

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Qy         69 VAANFLFLSGHIIFSPLPLINIRHPISKILS---PVMTFPYFIGLSMLSAISTERCLSIL 125

Db         66 ACADLIFLGCHMVAIVPDLLQGRLDFPGFVQTSLATLRFCYIVGLSLLAAVSVEQCLAAL 125

Qy        126 WPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFITIAWLV 185

Db        126 FPAWYSCRRPRHLTTCVCALTWALCLLLHLLLSGACTQFFGEPSRHLCRTLWLVAAVLLA 185

Qy        186 FLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLD 245

Db        186 LLCCTMCGASLMLLLRVERGPQRPPPRGFPGLILLTVLLFLFCGLPFGIYW--LSR-NLL 242

Qy        246 WKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEV 301

Db        243 WYIPHYFYHF-SFLMAAVHCAAKPVVYFCLGSAQGR--RLPLRLVLQRALGDEAEL 295


RESULT 4
US-10-055-877-244
; Sequence 244, Application US/10055877
; Publication No. US20050288241A1
; GENERAL INFORMATION:
;  APPLICANT: DeCristofaro, Marc
;  APPLICANT:  Padigaru, Muralidhara
;  APPLICANT:  Miller, Charles
;  APPLICANT:  Tchernev, Velizar
;  APPLICANT:  Zhong, Mei
;  APPLICANT:  Anderson, David
;  APPLICANT:  Ballinger, Robert
;  APPLICANT:  Gerlach, Valerie
;  APPLICANT:  Spytek, Kimberly
;  APPLICANT:  Ratelli, Luca
;  APPLICANT:  Kekuda, Ramesh
;  APPLICANT:  Guo, Xiaojia
;  APPLICANT:  Zerhusen, Bryan
;  APPLICANT:  Andrew, David
;  APPLICANT:  Mezes, Peter
;  APPLICANT:  Patturajan, Meera
;  APPLICANT:  Burgess, Cahterine
;  APPLICANT:  Eisen, Andrew
;  APPLICANT:  Wolenc, Adam
;  APPLICANT:  Baumgartner, Jason
;  APPLICANT:  Shimkets, Richard
;  APPLICANT:  Gusev, Vladimir
;  APPLICANT:  Vernet, Corine
;  APPLICANT:  Taupier Jr., Raymond
;  APPLICANT:  Pena, Carol
;  APPLICANT:  Shenoy, Suresh
;  APPLICANT:  Li, Li
;  APPLICANT:  Casman, Stacie
;  APPLICANT:  Boldog, Ference
;  TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoded Thereby
;  FILE REFERENCE: 21402-251
;  CURRENT APPLICATION NUMBER: US/10/055,877
;  CURRENT FILING DATE:  2002-01-22
;  PRIOR APPLICATION NUMBER: 60/262,892
;  PRIOR FILING DATE: 2001-01-19
;  PRIOR APPLICATION NUMBER: 60/263,598
;  PRIOR FILING DATE: 2001-01-23
;  PRIOR APPLICATION NUMBER: 60/263,799
;  PRIOR FILING DATE: 2001-01-24
;  PRIOR APPLICATION NUMBER: 60/264,117
;  PRIOR FILING DATE: 2001-01-25
;  PRIOR APPLICATION NUMBER: 60/264,139
;  PRIOR FILING DATE: 2001-01-25
;  PRIOR APPLICATION NUMBER: 60/264,478
;  PRIOR FILING DATE: 2001-01-26
;  PRIOR APPLICATION NUMBER: 60/263,351
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: 60/272,870
;  PRIOR FILING DATE: 2001-03-02
;  PRIOR APPLICATION NUMBER: 60/275,990
;  PRIOR FILING DATE: 2001-03-14
;  PRIOR APPLICATION NUMBER: 60/275,927
;  PRIOR FILING DATE: 2001-03-14
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 512
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 244
;   LENGTH: 343
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-055-877-244

  Query Match             24.3%;  Score 410.5;  DB 6;  Length 343;
  Best Local Similarity   34.6%;  Pred. No. 1.2e-28;
  Matches  101;  Conservative   53;  Mismatches  117;  Indels   21;  Gaps    7;

Qy         36 IISLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAANFLFLSGHIIFSPL-------PLI 88

Db         53 LLCLCGLVGNGLVLWFFGFSIKRNPFSIYFLHLASADVGYLFSKAVFSILNTGGFLGTFA 112

Qy         89 NIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWA 148

Db        113 DYIRSVCRVLGLCM---FLTGVSLLPAVSAERCASVIFPAWYWRRRPKRLSAVVCALLWV 169

Qy        149 LSLLRSILEWMFCDFLFSGANSVWCETSD-FITIAWLVFLCVVLCGSSLVLLVRILCGSR 207

Db        170 LSLLVTCLHNYFCVFLGRGAPGAACRHMDIFLGILLFLLCCPLMVLPCLALILHVECRAR 229

Qy        208 KMPLT-RLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDW--KVLFCHVHLVSIFLSALN 264

Db        230 RRQRSAKLNHVILAMVSVFLVSSIYLGIDWFLF------WVFQIPAPFPEYVTDLCICIN 283

Qy        265 SSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGGWLPQE-TLEL 315

Db        284 SSAKPIVYFLAGRDKSQRLWEPLRVVFQRALRDGAELGEAGGSTPNTVTMEM 335


RESULT 5
US-10-055-877-245
; Sequence 245, Application US/10055877
; Publication No. US20050288241A1
; GENERAL INFORMATION:
;  APPLICANT: DeCristofaro, Marc
;  APPLICANT:  Padigaru, Muralidhara
;  APPLICANT:  Miller, Charles
;  APPLICANT:  Tchernev, Velizar
;  APPLICANT:  Zhong, Mei
;  APPLICANT:  Anderson, David
;  APPLICANT:  Ballinger, Robert
;  APPLICANT:  Gerlach, Valerie
;  APPLICANT:  Spytek, Kimberly
;  APPLICANT:  Ratelli, Luca
;  APPLICANT:  Kekuda, Ramesh
;  APPLICANT:  Guo, Xiaojia
;  APPLICANT:  Zerhusen, Bryan
;  APPLICANT:  Andrew, David
;  APPLICANT:  Mezes, Peter
;  APPLICANT:  Patturajan, Meera
;  APPLICANT:  Burgess, Cahterine
;  APPLICANT:  Eisen, Andrew
;  APPLICANT:  Wolenc, Adam
;  APPLICANT:  Baumgartner, Jason
;  APPLICANT:  Shimkets, Richard
;  APPLICANT:  Gusev, Vladimir
;  APPLICANT:  Vernet, Corine
;  APPLICANT:  Taupier Jr., Raymond
;  APPLICANT:  Pena, Carol
;  APPLICANT:  Shenoy, Suresh
;  APPLICANT:  Li, Li
;  APPLICANT:  Casman, Stacie
;  APPLICANT:  Boldog, Ference
;  TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoded Thereby
```

```
;  FILE REFERENCE: 21402-251
;  CURRENT APPLICATION NUMBER: US/10/055,877
;  CURRENT FILING DATE:  2002-01-22
;  PRIOR APPLICATION NUMBER: 60/262,892
;  PRIOR FILING DATE: 2001-01-19
;  PRIOR APPLICATION NUMBER: 60/263,598
;  PRIOR FILING DATE: 2001-01-23
;  PRIOR APPLICATION NUMBER: 60/263,799
;  PRIOR FILING DATE: 2001-01-24
;  PRIOR APPLICATION NUMBER: 60/264,117
;  PRIOR FILING DATE: 2001-01-25
;  PRIOR APPLICATION NUMBER: 60/264,139
;  PRIOR FILING DATE: 2001-01-25
;  PRIOR APPLICATION NUMBER: 60/264,478
;  PRIOR FILING DATE: 2001-01-26
;  PRIOR APPLICATION NUMBER: 60/263,351
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: 60/272,870
;  PRIOR FILING DATE: 2001-03-02
;  PRIOR APPLICATION NUMBER: 60/275,990
;  PRIOR FILING DATE: 2001-03-14
;  PRIOR APPLICATION NUMBER: 60/275,927
;  PRIOR FILING DATE: 2001-03-14
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 512
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 245
;   LENGTH: 343
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-055-877-245

  Query Match             24.3%;  Score 410.5;  DB 6;  Length 343;
  Best Local Similarity   34.6%;  Pred. No. 1.2e-28;
  Matches  101;  Conservative   53;  Mismatches  117;  Indels   21;  Gaps    7;

Qy         36 IISLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAANFLFLSGHIIFSPL-------PLI 88
              :: |  | || :|||  |  ::||  ||| |:| :|:  :|    :|| |
Db         53 LLCLCGLVGNGLVLWFFGFSIKRNPFSIYFLHLASADVGYLFSKAVFSILNTGGFLGTFA 112

Qy         89 NIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWA 148
              :    : ::|   |   :  |:|:| |:| ||| |:::| ||  |||: ||:|:| |||
Db        113 DYIRSVCRVLGLCM---FLTGVSLLPAVSAERCASVIFPAWYWRRRPKRLSAVVCALLWV 169

Qy        149 LSLLRSILEWMFCDFLFSGANSVWCETSD-FITIAWLVFLCVVLCGSSLVLLVRILCGSR 207
              |||| : |   || ||  ||    |  | |: |  :  | ::    | |:: : | :|
Db        170 LSLLVTCLHNYFCVFLGRGAPGAACRHMDIFLGILLFLLCCPLMVLPCLALILHVECRAR 229

Qy        208 KMPLT-RLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDW--KVLFCHVHLVSIFLSALN 264
              :  : :|   ||  | |||:  :  || | ||      |  ::       |:     :|
Db        230 RRQRSAKLNHVILAMVSVFLVSSIYLGIDWFLF------WVFQIPAPFPEYVTDLCICIN 283

Qy        265 SSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGGWLPQE-TLEL 315
              ||| ||:||  |  : ::  : |::| ||||:|  |: | ||  |   |:|:
Db        284 SSAKPIVYFLAGRDKSQRLWEPLRVVFQRALRDGAELGEAGGSTPNTVTMEM 335


RESULT 6
US-10-055-877-71
; Sequence 71, Application US/10055877
; Publication No. US20050288241A1
; GENERAL INFORMATION:
;  APPLICANT: DeCristofaro, Marc
;  APPLICANT:  Padigaru, Muralidhara
;  APPLICANT:  Miller, Charles
;  APPLICANT:  Tchernev, Velizar
;  APPLICANT:  Zhong, Mei
;  APPLICANT:  Anderson, David
;  APPLICANT:  Ballinger, Robert
;  APPLICANT:  Gerlach, Valerie
;  APPLICANT:  Spytek, Kimberly
;  APPLICANT:  Ratelli, Luca
;  APPLICANT:  Kekuda, Ramesh
;  APPLICANT:  Guo, Xiaojia
;  APPLICANT:  Zerhusen, Bryan
;  APPLICANT:  Andrew, David
;  APPLICANT:  Mezes, Peter
;  APPLICANT:  Patturajan, Meera
;  APPLICANT:  Burgess, Cahterine
;  APPLICANT:  Eisen, Andrew
;  APPLICANT:  Wolenc, Adam
;  APPLICANT:  Baumgartner, Jason
;  APPLICANT:  Shimkets, Richard
;  APPLICANT:  Gusev, Vladimir
;  APPLICANT:  Vernet, Corine
;  APPLICANT:  Taupier Jr., Raymond
;  APPLICANT:  Pena, Carol
;  APPLICANT:  Shenoy, Suresh
;  APPLICANT:  Li, Li
;  APPLICANT:  Casman, Stacie
;  APPLICANT:  Boldog, Ference
;  TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoded Thereby
;  FILE REFERENCE: 21402-251
;  CURRENT APPLICATION NUMBER: US/10/055,877
;  CURRENT FILING DATE:  2002-01-22
;  PRIOR APPLICATION NUMBER: 60/262,892
;  PRIOR FILING DATE: 2001-01-19
;  PRIOR APPLICATION NUMBER: 60/263,598
;  PRIOR FILING DATE: 2001-01-23
;  PRIOR APPLICATION NUMBER: 60/263,799
;  PRIOR FILING DATE: 2001-01-24
;  PRIOR APPLICATION NUMBER: 60/264,117
;  PRIOR FILING DATE: 2001-01-25
;  PRIOR APPLICATION NUMBER: 60/264,139
;  PRIOR FILING DATE: 2001-01-25
;  PRIOR APPLICATION NUMBER: 60/264,478
;  PRIOR FILING DATE: 2001-01-26
;  PRIOR APPLICATION NUMBER: 60/263,351
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: 60/272,870
;  PRIOR FILING DATE: 2001-03-02
;  PRIOR APPLICATION NUMBER: 60/275,990
;  PRIOR FILING DATE: 2001-03-14
;  PRIOR APPLICATION NUMBER: 60/275,927
;  PRIOR FILING DATE: 2001-03-14
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 512
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 71
;   LENGTH: 343
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-055-877-71

  Query Match             23.9%;  Score 403.5;  DB 6;  Length 343;
  Best Local Similarity   34.2%;  Pred. No. 4.7e-28;
  Matches  100;  Conservative   53;  Mismatches  118;  Indels   21;  Gaps    7;

Qy         36 IISLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAANFLFLSGHIIFSPL-------PLI 88
              :: |  | || :|||  |  ::||  ||| |:| :|:  :|    :|| |
Db         53 LLCLCGLVGNGLVLWFFGFSIKRNPFSIYFLHLASADVGYLFSKAVFSILNTGGFLGTFA 112

Qy         89 NIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWA 148
              :    : ::|   |   :  |:|:| |:| ||| |:::| ||  |||: ||:|:| |||
Db        113 DYIRSVCRVLGLCM---FLTGVSLLPAVSAERCASVIFPAWYWRRRPKRLSAVVCALLWV 169

Qy        149 LSLLRSILEWMFCDFLFSGANSVWCETSD-FITIAWLVFLCVVLCGSSLVLLVRILCGSR 207
              |||| : |   || |   ||    |  | |: |  :  | ::    | |:: : | :|
Db        170 LSLLVTCLHNYFCVFPGRGAPGAACRHMDIFLGILLFLLCCPLMVLPCLALILHVECRAR 229

Qy        208 KMPLT-RLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDW--KVLFCHVHLVSIFLSALN 264
              :  : :|   ||  | |||:  :  || | ||      |  ::       |:     :|
Db        230 RRQRSAKLNHVILAMVSVFLVSSIYLGIDWFLF------WVFQIPAPFPEYVTDLCICIN 283

Qy        265 SSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGGWLPQE-TLEL 315
              ||| ||:||  |  : ::  : |::| ||||:|  |: | ||  |   |:|:
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```
Db        284 SSAKPIVYFLAGRDKSQRLWEPLRVVFQRALRDGAELGEAGGSTPNTVTMEM 335


RESULT 7
US-10-980-388-119
; Sequence 119, Application US/10980388
; Publication No. US20050255490A1
; GENERAL INFORMATION:
;  APPLICANT: Vogeli, Gabriel
;  APPLICANT:  Parodi, Luis A.
;  APPLICANT:  Hiebsch, Ronald R.
;  APPLICANT:  Lind, Peter
;  APPLICANT:  Kaytes, Paul S.
;  APPLICANT:  Ruff, Valerie
;  APPLICANT:  Huff, Rita M.
;  APPLICANT:  Wood, Linda S.
;  TITLE OF INVENTION: Novel G Protein-Coupled Receptors Cross-Reference To Related Appl
;  FILE REFERENCE: 00325.US1
;  CURRENT APPLICATION NUMBER: US/10/980,388
;  CURRENT FILING DATE:  2004-11-02
;  PRIOR APPLICATION NUMBER: US/09/791,932
;  PRIOR FILING DATE: 2001-02-23
;  PRIOR APPLICATION NUMBER: 60/184,305
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,304
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,303
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,397
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,247
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/188,880
;  PRIOR FILING DATE: 2000-03-13
;  PRIOR APPLICATION NUMBER: 60/217,369
;  PRIOR FILING DATE: 2000-07-11
;  PRIOR APPLICATION NUMBER: 60/217,370
;  PRIOR FILING DATE: 2000-07-11
;  PRIOR APPLICATION NUMBER: 60/218,492
;  PRIOR FILING DATE: 2000-07-20
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 184
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 119
;   LENGTH: 323
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-980-388-119

  Query Match             22.2%;  Score 375.5;  DB 6;  Length 323;
  Best Local Similarity   35.4%;  Pred. No. 1.2e-25;
  Matches  102;  Conservative   48;  Mismatches  115;  Indels   23;  Gaps    6;

Qy         33 LTCIISLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAANFLFLSGHIIFSPLPLINIRH 92
              ||  |: |     || :||| || |:::   |||:|:| ||:|||||  : ||   :
Db         52 LTLIVGLGGPVGNGLVLWNLGFRIKKGPFSIYLLHLAAADFLFLSCRVGFS---VAQAAL 108

Qy         93 PISKILSPVMTFPYF-IGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSL 151
                 |  |:|| :| :|| :|:| | ||||| |:|  |   |||: |:|:| |:|  :|
Db        109 GAQDTLYFVLTFLWFAVGLWLLAAFSVERCLSDLFPACYQGCRPRHASAVLCALVWTPTL 168

Qy        152 LRSILEWMFCDFLFSGANSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPL 211
                  |    |  | : |  : |       :: | : |  |   : :|| | : | | : |
Db        169 PAVPLPANACGLLRNSACPLVCPRYHVASVTWFLVLARVAWTAGVVLFVWVTCCSTR-PR 227

Qy        212 TRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIF------LSALNS 265
               |||  :|  :|:   ||||     |:|  ::           |: :|      |: :||
Db        228 PRLYGIVLGALLLLFFCGLPSVFYWSLQPLLNF----------LLPVFSPLATLLACVNS 277

Qy        266 SANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGGWLPQETL 313
              |: |:||  :|  ||   |: |: ||:||| :  |:   |  ||   |
Db        278 SSKPLIYSGLG--RQPGKREPLRSVLRRALGEGAELGARGQSLPMGLL 323


RESULT 8
US-10-055-877-246
; Sequence 246, Application US/10055877
; Publication No. US20050288241A1
; GENERAL INFORMATION:
;  APPLICANT: DeCristofaro, Marc
;  APPLICANT:  Padigaru, Muralidhara
;  APPLICANT:  Miller, Charles
;  APPLICANT:  Tchernev, Velizar
;  APPLICANT:  Zhong, Mei
;  APPLICANT:  Anderson, David
;  APPLICANT:  Ballinger, Robert
;  APPLICANT:  Gerlach, Valerie
;  APPLICANT:  Spytek, Kimberly
;  APPLICANT:  Ratelli, Luca
;  APPLICANT:  Kekuda, Ramesh
;  APPLICANT:  Guo, Xiaojia
;  APPLICANT:  Zerhusen, Bryan
;  APPLICANT:  Andrew, David
;  APPLICANT:  Mezes, Peter
;  APPLICANT:  Patturajan, Meera
;  APPLICANT:  Burgess, Cahterine
;  APPLICANT:  Eisen, Andrew
;  APPLICANT:  Wolenc, Adam
;  APPLICANT:  Baumgartner, Jason
;  APPLICANT:  Shimkets, Richard
;  APPLICANT:  Gusev, Vladimir
;  APPLICANT:  Vernet, Corine
;  APPLICANT:  Taupier Jr., Raymond
;  APPLICANT:  Pena, Carol
;  APPLICANT:  Shenoy, Suresh
;  APPLICANT:  Li, Li
;  APPLICANT:  Casman, Stacie
;  APPLICANT:  Boldog, Ference
;  TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoded Thereby
;  FILE REFERENCE: 21402-251
;  CURRENT APPLICATION NUMBER: US/10/055,877
;  CURRENT FILING DATE:  2002-01-22
;  PRIOR APPLICATION NUMBER: 60/262,892
;  PRIOR FILING DATE: 2001-01-19
;  PRIOR APPLICATION NUMBER: 60/263,598
;  PRIOR FILING DATE: 2001-01-23
;  PRIOR APPLICATION NUMBER: 60/263,799
;  PRIOR FILING DATE: 2001-01-24
;  PRIOR APPLICATION NUMBER: 60/264,117
;  PRIOR FILING DATE: 2001-01-25
;  PRIOR APPLICATION NUMBER: 60/264,139
;  PRIOR FILING DATE: 2001-01-25
;  PRIOR APPLICATION NUMBER: 60/264,478
;  PRIOR FILING DATE: 2001-01-26
;  PRIOR APPLICATION NUMBER: 60/263,351
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: 60/272,870
;  PRIOR FILING DATE: 2001-03-02
;  PRIOR APPLICATION NUMBER: 60/275,990
;  PRIOR FILING DATE: 2001-03-14
;  PRIOR APPLICATION NUMBER: 60/275,927
;  PRIOR FILING DATE: 2001-03-14
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 512
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 246
;   LENGTH: 342
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-055-877-246

  Query Match             21.7%;  Score 367.5;  DB 6;  Length 342;
  Best Local Similarity   32.4%;  Pred. No. 6.1e-25;
  Matches   96;  Conservative   61;  Mismatches  110;  Indels   29;  Gaps   10;

Qy         36 IISLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAANFLFLSGHIIFSPLPLINIR---- 91
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Db          52 LLCLCGLVGNGLVLWFFGFSIKRTPFSIYFLHLASADGIYLFSKAV---IALLNMGTFLG 108

Qy          92 ------HPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVL 145
                     :|:|:  : ||   | |:|:| ||| |||:|:::|:||   |||: ||: :| |
Db         109 SFPDYVRRVSRIVG-LCTF--FAGVSLLPAISIERCVSVIFPMWYWRRRPKRLSAGVCAL 165

Qy         146 LWALSLLRSILEWMFCDFLFSGANSVWCETSDFITIAWLVF--LCVVLCGSSLVLLVRIL 203
               || || | : :   || ||   |:    |   | |::  |:|   | ::     | |:: :
Db         166 LWLLSFLVTSIHNYFCMFLGHEASGTACLNMD-ISLGILLFFLFCPLMVLPCLALILHVE 224

Qy         204 CGSRKMPLT-RLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDW--KVLFCHVHLVSIFL 260
               | :|:   : :|   :|   | |||:  :  || | ||       |  ::       |:
Db         225 CRARRRQRSAKLNHVVLAIVSVFLVSSIYLGIDWFLF------WVFQIPAPFPEYVTDLC 278

Qy         261 SALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGGWLPQE-TLEL 315
                 :|||| ||:||  |  : ::  : |::| ||||:|  |  :     |   |:|:
Db         279 ICINSSAKPIVYFLAGRDKSQRLWEPLRVVFQRALRDGAEPGDAASSTPNTVTMEM 334
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RESULT 9
US-10-055-877-247
; Sequence 247, Application US/10055877
; Publication No. US20050288241A1
; GENERAL INFORMATION:
; APPLICANT: DeCristofaro, Marc
; APPLICANT: Padigaru, Muralidhara
; APPLICANT: Miller, Charles
; APPLICANT: Tchernev, Velizar
; APPLICANT: Zhong, Mei
; APPLICANT: Anderson, David
; APPLICANT: Ballinger, Robert
; APPLICANT: Gerlach, Valerie
; APPLICANT: Spytek, Kimberly
; APPLICANT: Ratelli, Luca
; APPLICANT: Kekuda, Ramesh
; APPLICANT: Guo, Xiaojia
; APPLICANT: Zerhusen, Bryan
; APPLICANT: Andrew, David
; APPLICANT: Mezes, Peter
; APPLICANT: Patturajan, Meera
; APPLICANT: Burgess, Cahterine
; APPLICANT: Eisen, Andrew
; APPLICANT: Wolenc, Adam
; APPLICANT: Baumgartner, Jason
; APPLICANT: Shimkets, Richard
; APPLICANT: Gusev, Vladimir
; APPLICANT: Vernet, Corine
; APPLICANT: Taupier Jr., Raymond
; APPLICANT: Pena, Carol
; APPLICANT: Shenoy, Suresh
; APPLICANT: Li, Li
; APPLICANT: Casman, Stacie
; APPLICANT: Boldog, Ference
; TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoded Thereby
; FILE REFERENCE: 21402-251
; CURRENT APPLICATION NUMBER: US/10/055,877
; CURRENT FILING DATE: 2002-01-22
; PRIOR APPLICATION NUMBER: 60/262,892
; PRIOR FILING DATE: 2001-01-19
; PRIOR APPLICATION NUMBER: 60/263,598
; PRIOR FILING DATE: 2001-01-23
; PRIOR APPLICATION NUMBER: 60/263,799
; PRIOR FILING DATE: 2001-01-24
; PRIOR APPLICATION NUMBER: 60/264,117
; PRIOR FILING DATE: 2001-01-25
; PRIOR APPLICATION NUMBER: 60/264,139
; PRIOR FILING DATE: 2001-01-25
; PRIOR APPLICATION NUMBER: 60/264,478
; PRIOR FILING DATE: 2001-01-26
; PRIOR APPLICATION NUMBER: 60/263,351
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: 60/272,870
; PRIOR FILING DATE: 2001-03-02
; PRIOR APPLICATION NUMBER: 60/275,990
; PRIOR FILING DATE: 2001-03-14
; PRIOR APPLICATION NUMBER: 60/275,927
; PRIOR FILING DATE: 2001-03-14
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 512
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 247
; LENGTH: 319
; TYPE: PRT
; ORGANISM: Mus musculus
US-10-055-877-247

Query Match 21.7%; Score 366.5; DB 6; Length 319;
Best Local Similarity 33.1%; Pred. No. 6.9e-25;
Matches 98; Conservative 55; Mismatches 114; Indels 29; Gaps 10;

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Qy          36 IISLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAANFLFLSGHIIFSPLPLIN------ 89
                  ::  |   | ||  :|||   |   ::|    |||  |:|  :|: ::|     :    : |:|
Db          29 LLCLCGLVGNGLVLWFFGFSIKRTPFSIYFLHLASADGMYLFSKAV---IALLNMGTFLG 85

Qy          90 -----IRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCV 144
                       ||   :|:|:  :  ||   | |:|:| ||| |||:|:::| ||   |||: ||: :|
Db          86 SFPDYIRR-VSRIVG-LCTF--FTGVSLLPAISIERCVSVIFPTWYWRRRPKRLSAGVCA 141

Qy         145 LLWALSLLRSILEWMFCDFLFSGANSVWCETSDFITIAWLVFL-CVVLCGSSLVLLVRIL 203
               |||  || | : :   || ||    |     |     |       | || | ::    | |:: :
Db         142 LLWMLSFLVTSIHNYFCMFLGHEAPGTVCRNMDIALGILLFFLFCPLMVLPCLALILHVE 201

Qy         204 CGSRKMPLT-RLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDW--KVLFCHVHLVSIFL 260
               | :|:   : :|   :|   | |||:  :  || | ||       |  ::       |:
Db         202 CRARRRQRSAKLNHVVLAIVSVFLVSSIYLGIDWFLF------WVFQIPAPFPEYVTDLC 255

Qy         261 SALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGGWLPQE-TLEL 315
                 :|||| ||:||  |  : ::  : |::| ||||:|  |  :     |   |:|:
Db         256 ICINSSAKPIVYFLAGRDKSQRLWEPLRVVFQRALRDGAEPGDAASSTPNTVTMEM 311
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RESULT 10
US-10-055-877-69
; Sequence 69, Application US/10055877
; Publication No. US20050288241A1
; GENERAL INFORMATION:
; APPLICANT: DeCristofaro, Marc
; APPLICANT: Padigaru, Muralidhara
; APPLICANT: Miller, Charles
; APPLICANT: Tchernev, Velizar
; APPLICANT: Zhong, Mei
; APPLICANT: Anderson, David
; APPLICANT: Ballinger, Robert
; APPLICANT: Gerlach, Valerie
; APPLICANT: Spytek, Kimberly
; APPLICANT: Ratelli, Luca
; APPLICANT: Kekuda, Ramesh
; APPLICANT: Guo, Xiaojia
; APPLICANT: Zerhusen, Bryan
; APPLICANT: Andrew, David
; APPLICANT: Mezes, Peter
; APPLICANT: Patturajan, Meera
; APPLICANT: Burgess, Cahterine
; APPLICANT: Eisen, Andrew
; APPLICANT: Wolenc, Adam
; APPLICANT: Baumgartner, Jason
; APPLICANT: Shimkets, Richard
; APPLICANT: Gusev, Vladimir
; APPLICANT: Vernet, Corine
; APPLICANT: Taupier Jr., Raymond
; APPLICANT: Pena, Carol
; APPLICANT: Shenoy, Suresh
; APPLICANT: Li, Li
; APPLICANT: Casman, Stacie
; APPLICANT: Boldog, Ference

```
;  TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoded Thereby
;  FILE REFERENCE: 21402-251
;  CURRENT APPLICATION NUMBER: US/10/055,877
;  CURRENT FILING DATE:  2002-01-22
;  PRIOR APPLICATION NUMBER: 60/262,892
;  PRIOR FILING DATE: 2001-01-19
;  PRIOR APPLICATION NUMBER: 60/263,598
;  PRIOR FILING DATE: 2001-01-23
;  PRIOR APPLICATION NUMBER: 60/263,799
;  PRIOR FILING DATE: 2001-01-24
;  PRIOR APPLICATION NUMBER: 60/264,117
;  PRIOR FILING DATE: 2001-01-25
;  PRIOR APPLICATION NUMBER: 60/264,139
;  PRIOR FILING DATE: 2001-01-25
;  PRIOR APPLICATION NUMBER: 60/264,478
;  PRIOR FILING DATE: 2001-01-26
;  PRIOR APPLICATION NUMBER: 60/263,351
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: 60/272,870
;  PRIOR FILING DATE: 2001-03-02
;  PRIOR APPLICATION NUMBER: 60/275,990
;  PRIOR FILING DATE: 2001-03-14
;  PRIOR APPLICATION NUMBER: 60/275,927
;  PRIOR FILING DATE: 2001-03-14
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 512
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 69
;   LENGTH: 340
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-055-877-69

  Query Match             20.7%;  Score 350;  DB 6;  Length 340;
  Best Local Similarity   33.1%;  Pred. No. 2e-23;
  Matches   89;  Conservative   43;  Mismatches  117;  Indels   20;  Gaps    6;

Qy         36 IISLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAANFLFLSGHIIFSPL-------PLI 88
              :: |  | || :|||  |  ::||  ||| |:| :|:  :|    :|| |
Db         53 LLCLCGLVGNGLVLWFFGFSIKRNPFSIYFLHLASADVGYLFSKAVFSILNTGGFLGTFA 112

Qy         89 NIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWA 148
              :    : ::|   |   :  |:|:| |:|   | |:::| ||  |||: ||:|:| |||
Db        113 DYIRSVCRVLGLCM---FLTGVSLLPAVSASACASVIFPAWYWRRRPKRLSAVVCALLWV 169

Qy        149 LSLLRSILEWMFCDFLFSGANSVWCETSD-FITIAWLVFLCVVLCGSSLVLLVRILCGSR 207
              |||| : |   || ||  ||    |   | |: |   :  | ::    | |:: : ||
Db        170 LSLLVTCLHNYFCVFLGRGAPGACCRHMDIFLGILLFLLCCPLMVLPCLALILHVECGPD 229

Qy        208 KMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDW--KVLFCHVHLVSIFLSALNS 265
                  :|   ||  | |||:  :  || | ||      |  ::       |:     :||
Db        230 GPRSAKLKHVILAMVSVFLVSSIYLGIDWFLF------WVFQIPAPFPEYVTDLCICINS 283

Qy        266 SANPIIYFFVGSFRQRQNRQNLKLVLQRA 294
              || ||:||  |    |     :|::|   |
Db        284 SAKPIVYFLAGR-TSRSGCWSLRVVFSGA 311


RESULT 11
US-10-980-388-39
; Sequence 39, Application US/10980388
; Publication No. US20050255490A1
; GENERAL INFORMATION:
;  APPLICANT: Vogeli, Gabriel
;  APPLICANT:  Parodi, Luis A.
;  APPLICANT:  Hiebsch, Ronald R.
;  APPLICANT:  Lind, Peter
;  APPLICANT:  Kaytes, Paul S.
;  APPLICANT:  Ruff, Valerie
;  APPLICANT:  Huff, Rita M.
;  APPLICANT:  Wood, Linda S.
;  TITLE OF INVENTION: Novel G Protein-Coupled Receptors Cross-Reference To Related Appl
;  FILE REFERENCE: 00325.US1
;  CURRENT APPLICATION NUMBER: US/10/980,388
;  CURRENT FILING DATE:  2004-11-02
;  PRIOR APPLICATION NUMBER: US/09/791,932
;  PRIOR FILING DATE: 2001-02-23
;  PRIOR APPLICATION NUMBER: 60/184,305
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,304
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,303
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,397
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,247
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/188,880
;  PRIOR FILING DATE: 2000-03-13
;  PRIOR APPLICATION NUMBER: 60/217,369
;  PRIOR FILING DATE: 2000-07-11
;  PRIOR APPLICATION NUMBER: 60/217,370
;  PRIOR FILING DATE: 2000-07-11
;  PRIOR APPLICATION NUMBER: 60/218,492
;  PRIOR FILING DATE: 2000-07-20
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 184
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 39
;   LENGTH: 187
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-980-388-39

  Query Match             15.2%;  Score 257.5;  DB 6;  Length 187;
  Best Local Similarity   36.1%;  Pred. No. 1.1e-15;
  Matches   57;  Conservative   32;  Mismatches   64;  Indels    5;  Gaps    3;

Qy         58 RNAVSIYIL-NLVAANFLFLSGHIIFSPLPLINIR--HP--ISKILSPVMTFPYFIGLSM 112
              ||  :||:|   :  : :||  |::     |: |   |  :   |: :  | | :|||:
Db          3 RNPFAIYLLVRGLQQDLIFLGCHMVAIVPDLLQGRLDFPGFVQTSLATLRFFCYIVGLSL 62

Qy        113 LSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVW 172
              |:|:| |:||: |:| || |||||:|:: :| | ||| ||  :|    |   |   :
Db         63 LAAVSVEQCLAALFPAWYSCRRPRHLTTCVCALTWALCLLLHLLLSSACTQFFGEPSRHL 122

Qy        173 CETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMP 210
              | |   :    |  ||  :||:||:||:|:  | :: |
Db        123 CRTLWLVAAVLLALLCCTMCGASLMLLLRVERGPQRPP 160


RESULT 12
US-10-980-388-98
; Sequence 98, Application US/10980388
; Publication No. US20050255490A1
; GENERAL INFORMATION:
;  APPLICANT: Vogeli, Gabriel
;  APPLICANT:  Parodi, Luis A.
;  APPLICANT:  Hiebsch, Ronald R.
;  APPLICANT:  Lind, Peter
;  APPLICANT:  Kaytes, Paul S.
;  APPLICANT:  Ruff, Valerie
;  APPLICANT:  Huff, Rita M.
;  APPLICANT:  Wood, Linda S.
;  TITLE OF INVENTION: Novel G Protein-Coupled Receptors Cross-Reference To Related Appli
;  FILE REFERENCE: 00325.US1
;  CURRENT APPLICATION NUMBER: US/10/980,388
;  CURRENT FILING DATE:  2004-11-02
;  PRIOR APPLICATION NUMBER: US/09/791,932
;  PRIOR FILING DATE: 2001-02-23
;  PRIOR APPLICATION NUMBER: 60/184,305
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,304
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,303
;  PRIOR FILING DATE: 2000-02-23
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;  PRIOR APPLICATION NUMBER: 60/184,397
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,247
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/188,880
;  PRIOR FILING DATE: 2000-03-13
;  PRIOR APPLICATION NUMBER: 60/217,369
;  PRIOR FILING DATE: 2000-07-11
;  PRIOR APPLICATION NUMBER: 60/217,370
;  PRIOR FILING DATE: 2000-07-11
;  PRIOR APPLICATION NUMBER: 60/218,492
;  PRIOR FILING DATE: 2000-07-20
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 184
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 98
;   LENGTH: 187
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-980-388-98

  Query Match            15.2%;  Score 257.5;  DB 6;  Length 187;
  Best Local Similarity   36.1%;  Pred. No. 1.1e-15;
  Matches   57;  Conservative   32;  Mismatches   64;  Indels    5;  Gaps    3;

Qy         58 RNAVSIYIL-NLVAANFLFLSGHIIFSPLPLINIR--HP--ISKILSPVMTFPYFIGLSM 112
              ||  :||:|    :  : :||  |::      |:  |   |  :   |: :  | | :|||:
Db          3 RNPFAIYLLVRGLQQDLIFLGCHMVAIVPDLLQGRLDFPGFVQTSLATLRFFCYIVGLSL 62

Qy        113 LSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVW 172
              |:|:| |:||: |:| || |||||:|:: :| | ||| ||  :|    |   |   :
Db         63 LAAVSVEQCLAALFPAWYSCRRPRHLTTCVCALTWALCLLLHLLLSSACTQFFGEPSRHL 122

Qy        173 CETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMP 210
              | |   :    |  ||  :||:||:||:|:  | :: |
Db        123 CRTLWLVAAVLLALLCCTMCGASLMLLLRVERGPQRPP 160


RESULT 13
US-10-980-388-97
; Sequence 97, Application US/10980388
; Publication No. US20050255490A1
; GENERAL INFORMATION:
;  APPLICANT: Vogeli, Gabriel
;  APPLICANT:  Parodi, Luis A.
;  APPLICANT:  Hiebsch, Ronald R.
;  APPLICANT:  Lind, Peter
;  APPLICANT:  Kaytes, Paul S.
;  APPLICANT:  Ruff, Valerie
;  APPLICANT:  Huff, Rita M.
;  APPLICANT:  Wood, Linda S.
;  TITLE OF INVENTION: Novel G Protein-Coupled Receptors Cross-Reference To Related Appl
;  FILE REFERENCE: 00325.US1
;  CURRENT APPLICATION NUMBER: US/10/980,388
;  CURRENT FILING DATE:  2004-11-02
;  PRIOR APPLICATION NUMBER: US/09/791,932
;  PRIOR FILING DATE: 2001-02-23
;  PRIOR APPLICATION NUMBER: 60/184,305
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,304
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,303
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,397
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/184,247
;  PRIOR FILING DATE: 2000-02-23
;  PRIOR APPLICATION NUMBER: 60/188,880
;  PRIOR FILING DATE: 2000-03-13
;  PRIOR APPLICATION NUMBER: 60/217,369
;  PRIOR FILING DATE: 2000-07-11
;  PRIOR APPLICATION NUMBER: 60/217,370
;  PRIOR FILING DATE: 2000-07-11
;  PRIOR APPLICATION NUMBER: 60/218,492
;  PRIOR FILING DATE: 2000-07-20
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 184
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 97
;   LENGTH: 211
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-980-388-97

  Query Match            14.4%;  Score 243;  DB 6;  Length 211;
  Best Local Similarity   38.4%;  Pred. No. 2.2e-14;
  Matches   61;  Conservative   26;  Mismatches   68;  Indels    4;  Gaps    2;

Qy         33 LTCIISLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAANFLFLSGHIIFSPLPLINIRH 92
              || |: |    || :||| || |:::   |||:|:| ||:|||||  : ||   :
Db         52 LTLIVGLGGPVGNGLVLWNLGFRIKKGPFSIYLLHLAAADFLFLSCRVGFS---VAQAAL 108

Qy         93 PISKILSPVMTFPYF-IGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSL 151
                 |  |:|| :| :|| :|:| | ||||| |:|  |   |||: |:|:| |:|  :|
Db        109 GAQDTLYFVLTFLWFAVGLWLLAAFSVERCLSDLFPACYQGCRPRHASAVLCALVWTPTL 168

Qy        152 LRSILEWMFCDFLFSGANSVWCETSDFITIAWLVFLCVV 190
                 |    | | : |  : |       :: | : |  |
Db        169 PAVPLPANACGLLRNSACPLVCPRYHVASVTWFLVLARV 207


RESULT 14
US-11-017-058-9
; Sequence 9, Application US/11017058
; Publication No. US20060014243A1
; GENERAL INFORMATION:
;  APPLICANT: Li, Yi
;  TITLE OF INVENTION: Human G-Protein Chemokine Receptor HSATU68
;  FILE REFERENCE: PF218C1
;  CURRENT APPLICATION NUMBER: US/11/017,058
;  CURRENT FILING DATE:  2004-12-21
;  PRIOR APPLICATION NUMBER: US 09/101,518
;  PRIOR FILING DATE: 1998-12-21
;  PRIOR APPLICATION NUMBER: PCT/US96/00499
;  PRIOR FILING DATE: 1996-01-11
;  NUMBER OF SEQ ID NOS: 9
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 9
;   LENGTH: 353
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-017-058-9

  Query Match            12.7%;  Score 215.5;  DB 7;  Length 353;
  Best Local Similarity   26.3%;  Pred. No. 8.7e-12;
  Matches   81;  Conservative   55;  Mismatches  105;  Indels   67;  Gaps   13;

Qy         19 EETPCYNQTLSFTG-----LTCIISLVALTGNA-VVLWLLGCRMRRNAVSIYILNLVAAN 72
              :  ||  ::|         :  :: |::| ||: |:| :|  |: |:   :|:||  |:
Db         29 DAAPCEPESLEINKYFVVIIYALVFLLSLLGNSLVMLVILYSRVGRSVTDVYLLNLALAD 88

Qy         73 FLF----------LSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTERC 121
               ||           ::| |  : |          |::| :    :: |: :|: || :|
Db         89 LLFALTLPIWAASKVNGWIFGTFL---------CKVVSLLKEVNFYSGILLLACISVDRY 139

Qy        122 LSILWPIWYHCRR----PRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWC-ETS 176
              |:|:     |  |     |||   :|: :| |||| ::   :|   ::|   |  | |
Db        140 LAIV-----HATRTLTQKRYLVKFICLSIWGLSLLLALPVLLFRRTVYSSNVSPACYEDM 194

Qy        177 DFITIAWLVFLCVV--LCGSSLVLLVRILC-GSRKMPLTRLYV--------TILLTVLVF 225
                |  | : | ::    |  : ||: : | |     | : ::          |   ||:|
Db        195 GNNTANWRMLLRILPQSFGFIVPLLIMLFCYGFTLRTLFKAHMGQKHRAMRVIFAVVLIF 254

Qy        226 LLCGLPFG-------------IQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIY 272
              ||| ||:              ||     | |:|  :    :       |  |:|  ||:||
Db        255 LLCWLPYNLVLLADTLMRTQVIQETCERRNHIDRALDATEI------LGILHSCLNPLIY 308
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Qy        273 FFVG-SFR 279
               |:|  ||
Db        309 AFIGQKFR 316


RESULT 15
US-10-055-877-225
; Sequence 225, Application US/10055877
; Publication No. US20050288241A1
; GENERAL INFORMATION:
;  APPLICANT: DeCristofaro, Marc
;  APPLICANT:  Padigaru, Muralidhara
;  APPLICANT:  Miller, Charles
;  APPLICANT:  Tchernev, Velizar
;  APPLICANT:  Zhong, Mei
;  APPLICANT:  Anderson, David
;  APPLICANT:  Ballinger, Robert
;  APPLICANT:  Gerlach, Valerie
;  APPLICANT:  Spytek, Kimberly
;  APPLICANT:  Ratelli, Luca
;  APPLICANT:  Kekuda, Ramesh
;  APPLICANT:  Guo, Xiaojia
;  APPLICANT:  Zerhusen, Bryan
;  APPLICANT:  Andrew, David
;  APPLICANT:  Mezes, Peter
;  APPLICANT:  Patturajan, Meera
;  APPLICANT:  Burgess, Cahterine
;  APPLICANT:  Eisen, Andrew
;  APPLICANT:  Wolenc, Adam
;  APPLICANT:  Baumgartner, Jason
;  APPLICANT:  Shimkets, Richard
;  APPLICANT:  Gusev, Vladimir
;  APPLICANT:  Vernet, Corine
;  APPLICANT:  Taupier Jr., Raymond
;  APPLICANT:  Pena, Carol
;  APPLICANT:  Shenoy, Suresh
;  APPLICANT:  Li, Li
;  APPLICANT:  Casman, Stacie
;  APPLICANT:  Boldog, Ference
;  TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoded Thereby
;  FILE REFERENCE: 21402-251
;  CURRENT APPLICATION NUMBER: US/10/055,877
;  CURRENT FILING DATE:  2002-01-22
;  PRIOR APPLICATION NUMBER: 60/262,892
;  PRIOR FILING DATE: 2001-01-19
;  PRIOR APPLICATION NUMBER: 60/263,598
;  PRIOR FILING DATE: 2001-01-23
;  PRIOR APPLICATION NUMBER: 60/263,799
;  PRIOR FILING DATE: 2001-01-24
;  PRIOR APPLICATION NUMBER: 60/264,117
;  PRIOR FILING DATE: 2001-01-25
;  PRIOR APPLICATION NUMBER: 60/264,139
;  PRIOR FILING DATE: 2001-01-25
;  PRIOR APPLICATION NUMBER: 60/264,478
;  PRIOR FILING DATE: 2001-01-26
;  PRIOR APPLICATION NUMBER: 60/263,351
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: 60/272,870
;  PRIOR FILING DATE: 2001-03-02
;  PRIOR APPLICATION NUMBER: 60/275,990
;  PRIOR FILING DATE: 2001-03-14
;  PRIOR APPLICATION NUMBER: 60/275,927
;  PRIOR FILING DATE: 2001-03-14
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 512
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 225
;   LENGTH: 259
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: 7tm_1 domain
;   OTHER INFORMATION: consensus sequence
US-10-055-877-225

  Query Match             12.1%;  Score 205;  DB 6;  Length 259;
  Best Local Similarity   29.2%;  Pred. No. 5.2e-11;
  Matches   80;  Conservative   46;  Mismatches   88;  Indels   60;  Gaps   12;

Qy         44 GN-AVVLWLLGCRMRRNAVSIYILNLVAANFLFLSGHIIFSPLPLINI---------RHP 93
              ||  |:| :|  :  |   :|:|||| |: |||   :   |  |  :
Db          1 GNLLVILVILRTKKLRTPTNIFILNLAVADLLFL---LTLPPWALYYLVGGSEDWPFGSA 57

Qy         94 ISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRR--PRYLSSVMCVLLWALSL 151
              : |::: :     :  : :|:||| :| |:|: |: |  ||  ||  : |: :|:| |:|
Db         58 LCKLVTALDVVNMYASILLLTAISIDRYLAIVHPLRYRRRRTSPR-RAKVVILLVWVLAL 116

Qy        152 LRSILEWMFCDFLFSGANSV----------------WCETSDFITIAWL--VFLCVVLC 192
              | |:         |||   :|                : | |       ||    |   |
Db        117 LLSL-----PPLLFSWVKTVEEGNGTLNVNVTVCLIDFPEESTASVSTWLRSYVLLSTLV 171

Qy        193 GSSLVLLVRILCGSRKM-PLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVL-- 249
              |  | ||| ::| :| :  | :   |:|: |:||:|| ||:      |  : ||   |
Db        172 GFLLPLLVILVCYTRILRTLRKAAKTLLVVVVVFVLCWLPY------FIVLLLDTLCLSI 225

Qy        250 ----FCHVH-------LVSIFLSALNSSANPIIY 272
                  | :         ||:::|: :||  |||||
Db        226 IMSSTCELERVLPTALLVTLWLAYVNSCLNPIIY 259


Search completed: February  3, 2006, 20:47:18
Job time : 17 secs
```

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November 2005

Published_Applications Nucleic Acid and Published_Applications Amino Acid database searches now generate two sets of results each. The Published_Applications databases have been split into two parts to reduce the amount of time required for their daily updates. This results in more machine time being available for processing searches.

Newly published applications will appear in the Published_Applications_New databases; older published applications make up the Published_Applications_Main databases.

Searches run against Nucleic Acid Published_Applications produce two sets of results, with the extensions **.rnpbm** (Published_Applications_NA_Main) and **.rnpbn** (Published_Applications_NA_New).
Searches run against Amino Acid Published_Applications produce two sets of results, with the extensions **.rapbm** (Published_Applications_AA_Main) and **.rapbn** (Published_Applications_AA_New).

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